

NUCLEAR WEAPONS AND FOREIGN POLICY

-2

HEARINGS

BEFORE THE

SUBCOMMITTEE ON U.S. SECURITY AGREEMENTS
AND COMMITMENTS ABROAD

AND THE

SUBCOMMITTEE ON ARMS CONTROL,
INTERNATIONAL LAW AND ORGANIZATION

OF THE

COMMITTEE ON FOREIGN RELATIONS

UNITED STATES SENATE

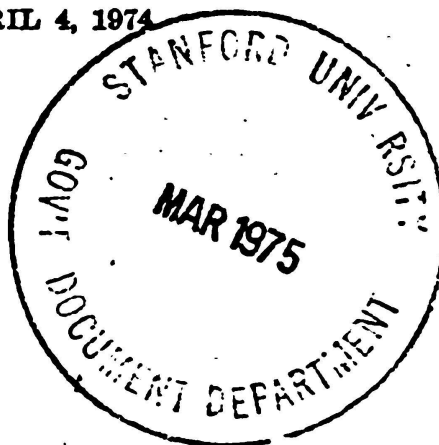
NINETY-THIRD CONGRESS

SECOND SESSION

ON

U.S. NUCLEAR WEAPONS IN EUROPE AND U.S.-U.S.S.R.
STRATEGIC DOCTRINES AND POLICIES

MARCH 7, 14, AND APRIL 4, 1974



Printed for the use of the Committee on Foreign Relations

U.S. GOVERNMENT PRINTING OFFICE

WASHINGTON : 1974

33-439

NUCLEAR WEAPONS AND FOREIGN POLICY

THURSDAY, MARCH 14, 1974

UNITED STATES SENATE,
SUBCOMMITTEE ON U.S. SECURITY AGREEMENTS AND
COMMITMENTS ABROAD OF THE
COMMITTEE ON FOREIGN RELATIONS,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10:05 a.m., room 4221, Dirksen Senate Office Building, Senator Stuart Symington [chairman of the subcommittee] presiding.

Present: Senators Symington, Muskie, Case, Aiken, and Javits.
Senator SYMINGTON. The subcommittee will come to order.

OPENING STATEMENT

The session this morning is the second in a series of hearings this subcommittee is holding to consider nuclear weapons in general and more specifically their relationship to "the changing aspects of the U.S. security commitment to Europe." We are placing particular emphasis on the implications of the deployment of tactical nuclear weapons as an aspect of overall defense of Europe.

Deployment of U.S. nuclear weapons in various foreign countries has never before been examined in public hearings. This condition is due, in large measure, to the fact that so little information about U.S. nuclear deployment has ever been made available to the public.

For many years the prevailing attitude has been that knowledge of nuclear weapons, including deployments both at home and abroad, was too serious a matter for public discussion; an attitude that we believe has operated against the best interests of the United States.

Specifically, the implications of these nuclear deployments are so serious that, within the constraints of legitimate security requirements, all relevant facts should be made known in order to achieve rational decisions about the future role of these weapons in national security policy.

The significance of our nuclear weapons stockpile in Europe, only in Europe, becomes all too apparent when one realizes that the destructive force, in TNT equivalent, of the nuclear weapons we have currently stockpiled on European soil alone is more than 20 times that of the combined total force of all the air ordnance expended in World War II, the Korean war, and the war in Vietnam.

Given the unprecedented destructive force of said weapons, one would assume the existence of carefully thought out and agreed upon plans for their use and control.

That is not correct, however. As but one example, in the first of these hearings, held last March 7, the subcommittee was told by a former official of the Defense Department that thus far the U.S. military has had, and I quote, "almost no success in the attempt to develop a doctrine for the use of tactical nuclear weapons on the European battlefield."

In the course of hearings held last year by the Military Applications Subcommittee of the Joint Committee on Atomic Energy, a committee incidentally that I chair, U.S. military officials acknowledged that our European allies still have grave reservations about the deployment of nuclear weapons in their countries.

One reason for this attitude no doubt is found in the relatively little known estimates of the actual number of casualties that could be expected to result from a nuclear exchange over European soil—an exchange which we might regard as tactical but which for the Europeans involved would be a strategic nuclear war.

As is also true of the various implications of nuclear weapons deployments, said facts are consistently shrouded in secrecy. Several years ago, however, a few statistics came to light in a book written by Helmut Schmidt, the present Minister of Finance and former Minister of Defense, of the Federal Republic of Germany. His book, entitled "Defense or Retaliation," describes a NATO war game, known as "Carte Blanche," which was conducted in Western Europe in 1955. Minister Schmidt reported that, before the "exercise" had been in progress even 3 days, a total of 335 tactical nuclear devices were "exploded," 268 of them theoretically on German territory.

The available account of said exercise reports that:

German casualties, not including those attributable to residual radiation, were estimated at between 1.5 and 1.7 million dead, and 3.5 million wounded. These figures compare with total German civilian casualties inflicted by allied bombing throughout the entire Second World War of 305,000 killed and 780,000 wounded.

One and a half million dead in a one-shot nuclear exchange, as against 305,000 killed in the entire Second World War.

Those statistics are all the more appalling when one notes that the exercise in question was held before the Soviets had acquired their major tactical nuclear capability, presently available to their forces; and therefore was predicated on the use of nuclear weapons only by NATO forces.

In light of these considerations, it becomes increasingly clear that the Congress will be remiss in its responsibilities if it does not undertake a thorough review of U.S. nuclear deployments in Europe.

WITNESSES

We are fortunate today to have as witnesses two former senior officials of the Department of Defense who, by virtue of their previous responsibilities, are unusually well qualified to discuss the military, economic, and political implications of these nuclear deployments in Europe.

The first witness will be Mr. Paul Warnke, former Assistant Secretary of Defense for International Security Affairs. The second

PREPARED STATEMENT OF SECRETARY OF DEFENSE JAMES R. SCHLESINGER

Mr. Chairman and members of the subcommittees, I appreciate the opportunity to appear before your Subcommittees to discuss the deployment of U.S. nuclear weapons in Europe, and their relationship to the conventional and strategic forces of the Alliance in providing NATO with a credible deterrent and defense strategy. Admiral Moorer, Chairman of the Joint Chiefs of Staff, has accompanied me today and will assist me in responding to your questions.

STRATEGY

I believe a few initial remarks on NATO strategy will be helpful in placing theater nuclear weapons in their relation to both strategic and conventional forces for NATO defense. I will also touch on our overall commitment to NATO and the necessity for maintaining a strong, quality tactical nuclear force in Europe.

The objective of NATO strategy is deterrence, and the forces we field to achieve deterrence are both nuclear and conventional forces. The role of these forces has changed over time. In NATO's early days, the United States enjoyed a clear superiority in nuclear forces. This allowed early NATO strategy to be based on the "tripwire" concept, by which conventional ground forces in Europe were designed to serve primarily to trigger nuclear retaliation by the United States against a Warsaw Pact attack.

Now, as the Soviet Union reaches nuclear parity with the United States, deterrence will be strongly reinforced if we maintain a balance of conventional as well as of nuclear forces. This clearly does not mean that we no longer require a nuclear deterrent. Nor does it mean that the American nuclear commitment to the security of the Alliance has been outdated. The commitment is firm. But it does mean that our nuclear forces may no longer carry the same dominant weight in the balance of deterrence that they did in an earlier period, and this places a higher value on NATO's conventional military capabilities. Thus a maintenance of a strong conventional capability is more than ever necessary—not because we wish to wage conventional war but because we do not wish to wage any war.

Let me underscore at the outset that we have no desire to alter the basic principles of NATO strategy, namely flexible response, forward defense and deterrence based on a spectrum of conventional and nuclear capabilities. We believe that the current NATO strategy is sound and that it continues to serve the Alliance well, and we believe our Allies share this view.

I have discussed with our NATO Allies what I call the "NATO triad," which is different in concept from our strategic triad. It is based upon strategic forces primarily provided by the United States, tactical nuclear forces, and a stalwart conventional capability. I believe that the European Allies are aware of the implications of nuclear parity, and are now more interested in a stalwart conventional capability than they have been since the inception of NATO in 1949.

Confidence in the NATO triad of deterrents requires first of all that the Alliance has real capabilities to resist aggression, but confidence in NATO deterrents also requires that NATO's proposed responses appear credible to potential foes. Deterrence works only so long as there is no serious doubt about a willingness to use available forces.

How much of that burden can be assumed by tactical nuclear capabilities continues to be a matter of considerable discussion. While progress has been made by the Alliance in developing an armory of nuclear weapons for tactical purposes, much work on this leg of the NATO triad remains to be done. NATO still needs improved doctrines for the tactical use of nuclear weapons. This includes the ability to control escalation if the Alliance must resort to the use of nuclear weapons. We should strive to reduce the vulnerability of the systems already deployed and, if NATO can deal with these problems, the Alliance should consider whether, in the future, there are serious possibilities of replacing the existing stockpile with nuclear weapons and systems more appropriate to the environment of Eastern and Western Europe. Steps of this order should ensure that the tactical nuclear forces will serve both as a direct deterrent to a nuclear attack by the Pact and as a serious hedge against any major breakdown in our conventional defenses.

THEATER NUCLEAR FORCES IN RELATION TO THE STRATEGY

On a continuing basis, we review the role of theater nuclear forces in relation to NATO strategy, and the numbers and types of weapons which should be stockpiled in the European Command. We deploy nuclear weapons to Europe for three major reasons. *First*, maintaining nuclear capabilities is essential to deterrence as long as the Warsaw Pact maintains roughly comparable theater nuclear capabilities. These weapons help to deter use of nuclear weapons by the Warsaw Pact and, along with the conventional and strategic nuclear forces, provide a general deterrent across the entire spectrum of possible aggression. *Second*, should deterrence fail, our tactical nuclear capabilities provide a source of nuclear options for defense other than the use of strategic forces. *Third*, in keeping with the flexible response strategy, we do not rule out the use of nuclear weapons by the United States and its Allies if necessary to contain and halt major conventional aggression.

NATO must continue to maintain credibility of deterrence and defense in all three areas of military response: conventional, theater nuclear, and strategic nuclear. If any one of these capabilities were missing, deterrence of deliberate aggression would be compromised.

Let me turn now to some of the desirable characteristics of tactical nuclear forces which are necessary to maintain a credible theater nuclear deterrent. Basically, these forces should have the capability for the following: Quick dispersal to match a Warsaw Pact surprise dispersal; survivability and controllability while dispersed; denying the enemy his military objectives without excessive collateral damage; providing for selective, carefully-controlled employment options; and penetrating enemy defenses.

Nuclear forces with these characteristics, combined with a resolve to use them when faced with aggression, as I have described above, enhance the credibility of our deterrent.

The tactical nuclear stockpile has been moderately upgraded over the years to have some of these desired characteristics. In working to eliminate deficiencies, we do not intend that the mere existence of a particular new technology should dictate a change in the stockpile. Rather, proposed new nuclear weapons will be examined case-by-case on the basis of military and political factors to determine whether they provide a desirable improvement over current weapons.

The size and composition of our nuclear stockpile in Europe is a matter to which the Allied staff at SHAPE and the U.S. staff at USEUCOM give continuing attention. These staffs review annually, or more frequently as conditions warrant, the requirements for weapons needed to execute strikes against fixed targets, for air defense, the naval battle, and for non-fixed land battle targets. The Joint Chiefs of Staff review these studies and recommendations and provide their own views. The actual nuclear stockpile authorization and deployment plans are further reviewed by my office in consideration of all the pertinent factors prior to the ultimately-required Presidential approval.

Contributing significantly to our evaluation of theater nuclear forces is the ongoing work of NATO's Nuclear Planning Group. The NPG has conducted a number of studies dealing with theater forces and the tactical use of nuclear weapons by NATO in a variety of assumed circumstances. Guidelines have been developed for certain broad categories of use. A current work effort is focused on the possible follow-on tactical use of nuclear weapons. These studies and discussions in the NPG have served to sharpen our own as well as Allied perceptions of the role that theater nuclear weapons plan in overall NATO strategy.

In discussing the role of theater nuclear forces, I must stress that our tactical nuclear systems do not now and will not in the future be an effective substitute for a stalwart non-nuclear defense. Accordingly, we and our Allies must maintain strong conventional forces. However, there is also a need to maintain theater nuclear forces which, as I have indicated, are an important component of our deterrent posture.

CONSULTATION

The fact that nuclear weapons could be launched from or used on Allied soil necessitates the closest type of dialogue and coordinated planning between the U.S. and the Allies. We recognized early on that the need for close consultation within NATO would be essential to Alliance solidarity and our collective security.

Accordingly, in 1962 the Alliance established what has become known as the Athens Guidelines, which deal with the question of consultation in a variety of situations involving aggression against NATO. Subsequent elaborations of the Guidelines provided that special weight be accorded the views of those NATO countries on or from whose territory nuclear weapons would be employed, countries providing the nuclear warheads, or the countries providing or manning nuclear delivery systems. The necessity of avoiding inflexible or overly elaborate procedures which might inhibit action or endanger the credibility of the deterrent also was recognized.

In accord with these principles, procedures and channels were established through which national capitals could be consulted and would be able to transmit their views through the North Atlantic Council or the NATO Defense Planning Committee (DPC) to the nuclear powers, or directly capital to capital. Requests for use of nuclear weapons in defense of NATO by a member government or Major NATO Commander, or a proposal to use weapons by a nuclear power, would be communicated directly to NATO governments and to the Council/DPC. The focal point for consultation normally would be the Council/DPC, where interest likely would center on the political and military objectives and consequences of the proposed use and non-use. The views of countries expressed there would be communicated to the nuclear power or powers concerned by the fastest means available.

Two additional points should be made. First, it is well understood that the agreed consultation procedures would be exercised, time and circumstances permitting. Secondly, the nuclear power or powers have the responsibility for making the decision on whether or not nuclear weapons will be used. That decision is then transmitted to the Major NATO Commander(s) and to the NATO governments and their representatives at the NAC/DPC.

Naturally, the nuclear consultation process is woven into the on-going process of general consultation in time of crisis. NATO countries would be consulting from the earliest stages of any crisis, hopefully before commencement of hostilities. In this manner, nuclear considerations would mesh with the structure of general consultation already in process.

I might add here that consultation with our Allies about nuclear weapons and policy is of course not limited to periods of crisis. As I mentioned earlier, the Nuclear Planning Group has provided an excellent mechanism for conducting a continuing dialogue on these matters. By facilitating such a dialogue in peacetime, the NPG fulfills a key purpose of familiarizing NATO Ministers with the kinds of information and questions that would be relevant to consultation on the possible use of nuclear weapons.

SECURITY

We pay special attention to safeguarding our nuclear weapons against any threat to the weapons themselves and to their storage environment. A continuing effort is made to ensure that our procedures are adequate to prevent unwarranted actions from taking place, while maintaining the operational utility of these weapons in the context of our forward defense strategy. Regardless of the size of the warhead or the location on the battlefield, all weapons are under positive control to prevent their use before release by the President.

Concurrently with our added emphasis on enhanced security measures through the U.S. custodial chain, we are receiving good cooperation from the other NATO countries. Specific recent or current actions to improve weapon security and safeguards include reduction of weapon movements, consolidation of weapon storage sites, increased site defense capabilities and training of all security forces, improvements to the physical layout of the sites, such as lighting and road barriers, and improved weapons security devices. Research is being conducted on additional intrusion detection, access denial, and denial/disable systems which would further enhance site and weapon security.

The nuclear weapons security program is monitored at the highest levels in the European command and within my own office.

CLASSIFICATION

Mr. Chairman, I recognize that a major purpose of these hearings is to explore the possibility of making public more information about our theater nuclear forces and weapons. I strongly support the thesis that the American people should be as fully informed as possible on actions their government takes to

insure that we maintain an adequate defense posture. Only in this way can we maintain the support of the American public.

I believe it is appropriate to point out at the outset that a good deal of information about our theater nuclear forces in Europe is already in the public domain. There is no great mystery about the purposes of our deployments, their general size, or the kinds of nuclear delivery systems involved. It is known, for example, that about 7,000 U.S. nuclear warheads are deployed to Europe. It is known that the systems include atomic demolition munitions (ADM's); 8 inch and 155 millimeter artillery; HONEST JOHN, SERGEANT, LANCE and PERSHING missiles; bombs; and air defense weapons. For all these systems the general yields are also known—whether sub-kiloton, kiloton or megaton, and whether several yields are available for a particular system. Similar unclassified information is available for the several categories of naval weapons. In my judgment, therefore, intelligent public debate on these matters is not precluded by the lack of relevant unclassified information.

On the other hand, we must continue to classify information on the technical details of nuclear weapons and on military utilization to protect our operational nuclear forces. We withhold information on weapons quantities and specific locations in order to prevent an enemy from being able to make accurate assessments of our military strength, and to deny him vital information for his targeting plans. Specific employment plans, options and tactics are also classified, for obvious reasons. Even though clandestine information or his own research might provide an enemy much of the knowledge that he desires on our programs, he needs confirmation before he can have confidence in his assessment.

In the United States Government, classification of nuclear weapons information is based upon the Atomic Energy Act of 1954, as amended. The Department of Defense and the Atomic Energy Commission are required by law to keep the Congress informed through the Joint Committee on Atomic Energy. We have kept the Joint Committee fully informed on all aspects of nuclear weapons by passing *all* information, regardless of classification, and will continue to do so.

It must also be remembered that a good deal of information relating to our theater nuclear forces involves not only American interests, but also those of our European Allies. As you well know, one of the basic aspects of the Nuclear Non-proliferation Treaty concerns our agreement to provide the nuclear shield for NATO.

We have programs of cooperation with a number of NATO countries under which the United States agrees to earmark nuclear weapons for use by Allied nuclear delivery units. The weapons of course remain under U.S. custody and control at all times, unless and until released by the President. Much relevant information about our theater nuclear forces derives from these agreements with our Allies and carries a dual classification—that is, both a U.S. and another country or NATO classification. Consequently, the U.S. Government could not declassify such jointly-controlled information without detailed consultations with our Allies.

With this said, Mr. Chairman, I wish to reaffirm that an important goal of the Department of Defense is greater public understanding and support of our defense policies and programs. In this light we support fuller discussion of nuclear issues and the role of nuclear weapons. I have tried to contribute to this discussion in my Defense Report. We will continue to look for further areas where declassification may be possible without detriment to military considerations and with due regard for our agreements with the Allies.

To sum up, Mr. Chairman, we consider the role of theater nuclear weapons to be a vital link in our flexible response strategy. They not only comprise a significant part of the NATO triad deterrent posture, but also provide us with a range of options other than the use of strategic weapons should conventional defense fail. We have reason to believe that the capabilities of our in-theater forces, along with our strategic forces, have contributed to encouraging the USSR and its Warsaw Pact Allies to move in the direction of detente.

Senator SYMINGTON. Thank you, Mr. Secretary.

I have many questions here and I am sure my colleagues do also.

DR. ENTHOVEN'S RECOMMENDATION

I would make an observation about the statement of Dr. Enthoven. You quoted some of his statement, but not all of it. He said in the same statement:

"The proposed reduction of 1,000 tactical nuclear weapons," which we would divide between surface-to-surface missiles like Lance and Pershing, and artillery shells. He asserted, for example, that "nuclear armed quick reaction aircraft make no sense at all." He states they are useless in a second strike or retaliatory mode because they are hopelessly vulnerable. But whether or not he is correct in those observations I merely state that he recommends a very heavy reduction in the nuclear weapons that we have in Europe and I think that ought to go in the record.

Secretary SCHLESINGER. Yes, sir.

NUMERICAL COMPARISON OF UNITED STATES AND SOVIET TACTICAL WEAPONS IN EUROPE

Senator SYMINGTON. In the opening pages of your prepared testimony you state that in NATO's early days the United States enjoyed a "clear superiority in nuclear forces," which permitted NATO strategy to be based on the "trip wire" concept. But you also say that:

As the Soviet Union reaches nuclear parity with the United States * * * our nuclear forces may no longer carry the same dominant weight in the balance of deterrence that they did in an earlier period.

As a point of fact, the Soviet Union began to deploy tactical nuclear weapons in Europe in 1957, and by the early 1960's its ground forces were fully equipped. How do the number of United States and Soviet tactical weapons in Europe compare today?

Secretary SCHLESINGER. The United States has a numerical advantage of approximately 2 to 1, Mr. Chairman. That does not include the IRBM's and MRBM's located in the western U.S.S.R. However, our information on Soviet tactical nuclear weapons in Europe is not very good.

Senator SYMINGTON. Thank you.

DEVISING WORKABLE DOCTRINE FOR TACTICAL NUCLEAR WARFARE

You note that the question of how much of the NATO defense burden can be assumed by tactical nuclear capabilities "continues to be a matter of considerable discussion." Is this a reference to the widely held view that we have not yet succeeded in devising a workable doctrine for tactical nuclear warfare?

Secretary SCHLESINGER. It relates in part to that point, Mr. Chairman.

Senator SYMINGTON. Thank you.

Secretary SCHLESINGER. In addition to that, there are differences of judgment about the suitability of tactical nuclear weapons and their employment in Western Europe, and I would endorse in that regard many of the observations that Dr. Enthoven has made and that Senator Muskie also made.

“CONTROLLED ESCALATION”

Senator SYMINGTON.

In your statement, you refer to the need for additional work on our “ability to control escalation.” How can we reasonably expect to “control escalation,” given the “unnecessarily high yields” of our weapons, as reported to us by General Goodpaster, and if Soviet military doctrine still adheres to the theory that any use of nuclear weapons will trigger a general nuclear war?

Secretary SCHLESINGER. That question comes in two parts, Mr. Chairman. Of course, one of the advantages in terms of deterrence that the United States and its allies possess is there is a greater range of capability in our tactical nuclear weaponry than exists for the Soviet Union. We have many low-yield weapons. As you have pointed out, Mr. Chairman, some of our tactical nuclear weapons have significantly higher yields than some of our strategic weapons. But we have a range of options.

Soviet strategic doctrine, of course, is evolving. Doctrine changes much more rapidly than can a force structure. A force structure may take as much as 10 or 12 years to change significantly, whereas doctrine can be changed in the course of a year, as I believe your opening statement suggested.

The point that one has to emphasize here is that either way, if the Soviets believe that any initiation of the use of tactical nuclear weapons would be unconstrained or would result in an unconstrained situation, or if they believe it could go unconstrained, that would improve deterrence. If they believe it can be constrained, then they have in effect endorsed our strategy. I might add that there has been an evolution in that direction in Soviet strategic doctrine in recent years.

By contrast, if they believe that nuclear war inevitably must go unconstrained, then they must treat our deterrence posture with even greater respect for fear that the Western Allies, not sharing their doctrinal position on this matter, might, in their view, mistakenly use nuclear weapons. For that reason, I think that we significantly shore up deterrence across the board either way Soviet doctrine runs.

But I might also emphasize, Mr. Chairman, that doctrines control the minds of men only in periods of nonemergency. They do not necessarily control the minds of men during periods of emergency. In the moment of truth, when the possibility of major devastation occurs, one is likely to discover sudden changes in doctrine.

Senator SYMINGTON. Interesting.

On the question of whether it is possible to fight a limited nuclear war or to “control escalation,” I would like to read a short statement from a recognized authority on nuclear weapons and then ask you to comment:

“While it is possible to design a theoretical model for limited nuclear war, the fact remains that 15 years after the beginning of the nuclear age no such model has ever achieved general agreement. It would be next to impossible to obtain from our military establishment a coherent description of what is understood by ‘limited nuclear war’.” That is the guts and the thrust of some of the aspects of these

hearings—continuing with the statement, “Since disputes about targets are usually settled by addition, by permitting each service to destroy what it considers essential to its mission, a limited nuclear war fought in this manner may become indistinguishable from all-out war . . .”

That was a statement made by Dr. Kissinger before he became Secretary of State. Would you comment on it.

QUESTION OF UTILITY OF TACTICAL NUCLEAR WEAPONS

Secretary SCHLESINGER. Yes, sir. I think that if you go back you will discover that Dr. Kissinger has had different views with regard to the utility of tactical nuclear weapons going back to the study that he wrote in 1957 for the Council on Foreign Relations.

Senator SYMINGTON. This statement was made in 1960.

Secretary SCHLESINGER. Yes, sir.

Now, as I have indicated there are many differences of opinion on the question of the utility of tactical nuclear weapons. Although we are discussing nuclear weapons today, I perhaps should reinforce the point that the thrust of what the Department of Defense is urging is for a shoring up of our conventional capability so that we hopefully can keep conflict at a low level. And that also improves deterrence.

NO GUARANTEE THAT NUCLEAR WAR CAN REMAIN LIMITED

We can offer no guarantee, Mr. Chairman, that nuclear war can remain limited. There is always a risk. The point that we are making is that to have a strategy that is based upon massive application of force against the cities of one's opponent eliminates the uncertainties, but it substantially enhances the penalties.

The United States under those circumstances, if it responded to a Soviet attack by making an all-out attack rather than attempting to keep nuclear war constrained, would be guaranteeing the destruction of American cities as well as the cities of the Soviet Union.

There is a nostalgia, I think, for the period in which the United States possessed a nuclear monopoly. There is also a nostalgia, I think, for the period in the sixties in which the United States retained numerical superiority. The strategies that we suggest hold out substantial promise in the eyes of many, including myself, and at least some hope, even in the eyes of skeptics, of keeping nuclear war constrained.

I will make the same observation with regard to models as I attempted to observe with regard to doctrine. Models of wars are very poor.

CONSEQUENCE OF MANNER OF DEPLOYMENT OF TACTICAL NUCLEAR WEAPONS

Senator SYMINGTON. Mr. Secretary, Mr. Warnke stated with regard to tactical nuclear weapons in Europe that “the great number of these weapons, their nature and the deployment of many in forward locations give rise to serious security questions.” He also

stated that "The location of many of these weapons near the frontiers creates the risk that they might be overrun in the early stages in a surprise, but limited, attack." In passing, I am chairman of the Military Applications Subcommittee of the Joint Atomic Energy Committee, and putting it mildly, that statement is correct. He continues: "This risk could lead to an early and premature decision to use them rather than to see them fall into enemy hands." Dr. Halperin told the committee that the manner in which our tactical nuclear weapons in Europe are presently deployed increases the probability of their being used without explicit authority from the President of the United States. Would you comment?

Secretary SCHLESINGER. Mr. Chairman, I cannot imagine the circumstances in which U.S.-owned weapons would be used without the explicit authority of the President of the United States. I do not regard that as a problem as long as the President survives. Of course, as you know, in the event that the President does not survive, authority for the release of weapons falls to his successors in the chain of command.

With regard to Mr. Warnke's observations, I think that there is some truth in that, and some exaggeration, if I may say so.

There are vulnerabilities in our posture in Europe. I do not think that the security problems are as serious as Mr. Warnke's statement might suggest. We have vulnerabilities. I think that we should seek to reduce those vulnerabilities through a variety of measures including the introduction of Lance. I believe that your statement initially, Mr. Chairman, raised the question about QRA aircraft. We are taking a hard look at QRA aircraft. The points that are made, I think, are, by and large, well taken, save for the fact that the security of these weapons is exaggerated. A great deal of thought has gone into that. The weapons are spaced well back from the front. They are kept mobile so as to permit their rapid withdrawal should that be necessary.

Senator CASE. You are talking about aircraft now, Mr. Secretary, or—

Secretary SCHLESINGER. I was talking, Senator Case, initially about the artillery rounds which would have to be used close to the front. My comments relate, I think, directly to the Chairman's quoting of Mr. Warnke.

Senator SYMINGTON. Maybe it is true Mr. Warnke's statement was exaggerated, but it is exactly similar—

Secretary SCHLESINGER. It goes right to the issues.

Senator SYMINGTON [continuing]. To a similar report made by the Members of the Senate who were on the Joint Atomic Energy Committee and the staff of the Senate. They came back with exactly the same story.

NUMBER OF NUCLEAR WEAPONS NECESSARY TO PROVIDE DETERRENCE IN EUROPE

I think my time is nearing its end and have only one more question to ask at this time and will then yield to Chairman Muskie.

You state that should deterrence fail we need "nuclear options for defense other than the use of strategic forces" for nuclear weapons "to contain and halt major conventional aggression."

To that I would ask two questions: First, are 7,000 plus nuclear weapons necessary, that being the one figure that has been released and I think it is fair to say we both know it hasn't been reduced. We won't talk about how much it's been increased. First, are 7,000 nuclear weapons necessary to provide deterrence and second, if not, are the 7,000 weapons intended to provide us with a nuclear war-fighting capability?

Secretary SCHLESINGER. Mr. Chairman, I hope that I do not.

Senator SYMINGTON. Let me read the first one first. Are 7,000 nuclear weapons necessary to provide deterrence in Europe?

Secretary SCHLESINGER. I believe that under certain circumstances, that number may be too large and could be reduced and I should stress, Mr. Chairman, that that number is not immutable. There are diplomatic reasons associated with the size of that stockpile, but it is not immutable. The number of 7,000 weapons is approximately correct for Western Europe. A substantial number of those weapons are in Germany.

I think, Mr. Chairman, in line with your initial observations, that without dealing with the specific national sites or characteristics of the weapons, we have provided considerable information in the public record in which our tactical nuclear position in Europe can be seriously evaluated by yourselves and by the members of the public.

INTENDED USE OF 7,000 NUCLEAR WEAPONS IN EUROPE

Senator SYMINGTON. The second part of my question: If all 7,000 are not needed, as I understand you do not feel that they are, are the 7,000 weapons intended to provide us with a nuclear war-fighting capability?

Secretary SCHLESINGER. The 7,000 weapons, as I pointed out in my statement, are associated with the General Strike Plan of SACEUR that has been worked over for many years. It is the adjunct in Europe to the SIOP [Single Integrated Operations Plan]. The targets have been evaluated over many years by the staff at SHAPE and by SACEUR. To the extent that one is dealing with that kind of general strike plan associated with the SIOP, that is one reason those weapons are there. I do not believe, however, Mr. Chairman—let me state categorically—that those weapons are not to be associated with war fighting in the sense that you were using the term.

Senator SYMINGTON. Thank you, Mr. Secretary.

Chairman Muskie.

Senator MUSKIE. Mr. Chairman, I think it is only fair to yield to Senator Case at this point so we will preserve a reasonable division of time.

Senator SYMINGTON. He said he would be willing to yield to you, but I am glad to note your typical courtesy.

Senator CASE. I cannot express too highly my appreciation. Since you have passed the ball to me I shall go ahead, Messrs. Chairman.

DEPLOYMENT OF U.S. GROUND FORCES IN EUROPE

The Secretary has been scrupulous to recognize, following Chairman Symington's point about numbers and deployment of nuclear weapons in Europe, I would like to raise the related question of deployment of our ground forces there. Both witnesses who have been mentioned, I guess several of them or perhaps all of those fail to recall all of the parts of your question, whom we have heard, have recognized, that there be a redeployment from where our troops are largely stationed now to the place where the war would be fought, if there was one, the northern plains. This would provide a better deterrent, it would provide greater usefulness for our forces and it is said that ought to be done.

Now, is there anything that we can do, Mr. Secretary, to convince the American public that we are not wasting money and the time of American men and women in the deployment of our forces in Europe is a useful thing, and one of the most important things is to convince them that we are doing this, (1) because it is necessary, and (2) we are doing it in the most effective way? The people have got to be persuaded by this because it is not a little thing that we are doing.

We are running into balance of payments questions which we have tried to deal with, and you have done your very best on this and we will all continue to, but there still remains a substantial debt, and we are disrupting the lives of a good many people in this country, and altogether the general philosophy of Americans is that we ought to stay home and Senator Manfield's appeal for his reduction proposal has reached, touches a very responsive chord, so we have got to do the best we can with our forces over there and make the American people believe that we are doing this, make them understand that we are. So as one who has supported the deployment of American forces on the ground, in Europe on the ground, and as one who believes that we are not defending Europe, we are defending ourselves essentially; I wish you would comment on this point.

Secretary SCHLESINGER. Senator Case, I agree entirely with the thrust of your observations. We are attempting to make clear the close relationship between the kind of world in which Americans wish to live and the continued survival of a free and independent Western Europe. I recognize there is a desire to bring the forces home. But the forward deployment of U.S. forces, particularly in the critical Central Region of NATO, contributes to the maintenance of the kind of free world society which Americans welcome. If we were to withdraw our forces to the North American Continent, it would not be long before the North American Continent was the only place that we could call home or the only place that we would be seriously welcomed.

With regard to the forces in Europe, we are attempting to make some of the adjustments to which you referred. In the first place, in response to Senator Symington's report of last year, the report of the Senate Armed Services Committee, we are making substantial reductions in headquarters and will continue to make those reductions, in order to enhance the combat proportion of U.S. forces.

In addition to that we are beginning to explore the possibility of specializing our forces in Europe for operations in Europe. As you

know, the U.S. Army is prepared to move its divisions anywhere in the world, and this requires a substantial support and logistics train.

We are examining the possibility of specializing forces for Europe, which would permit some economies on the support and logistics side.

MOBILITY OF FORCES

Now, the point that was made by Mr. Warnke is well taken, that we should have the mobility to move the forces to the place, wherever that may be, that a hypothetical thrust might come.

Senator CASE. You are talking about moving them within the theater.

Secretary SCHLESINGER. Within the theater.

Senator CASE. Not out from here?

Secretary SCHLESINGER. From the south to the north if necessary and from the north to the south. We should make additional mobile forces available for the NATO central region as a whole so we can reinforce at points of greatest danger. That is a well-taken point.

Our plans should encompass such mobility and we will be discussing these matters with our allies. I think any plans must consider where those forces are barracked. At the present time, as you know, the Caserns are in southern Germany. But we must, as your question suggests and as Mr. Warnke's observation makes clear, treat the central region of NATO as a whole. It would be unsatisfactory if a stalwart conventional capability that could resist the assault existed in the south, where the American and German forces are located, but the defense failed in the North European plain. We must have a situation in which our conventional capability is uniformly effective across the entire central region.

"TRIP WIRE" ARGUMENT

Senator CASE. Related to that, Mr. Secretary, I wish you would deal with the point that is often made in connection with the argument to reduce our forces: viz their sole purpose or almost the sole purpose of their being there is as a "trip wire." That is not true, I understand. I have always hoped that this was not true, and, in the second place, I have been given to understand you in your testimony, the admiral and your associates, have increasingly made the point that Europe is defensible by conventional forces and that NATO is not obliged to rely on the "trip wire" which would set off the U.S. Strategic Air Force or other strategic weapons automatically.

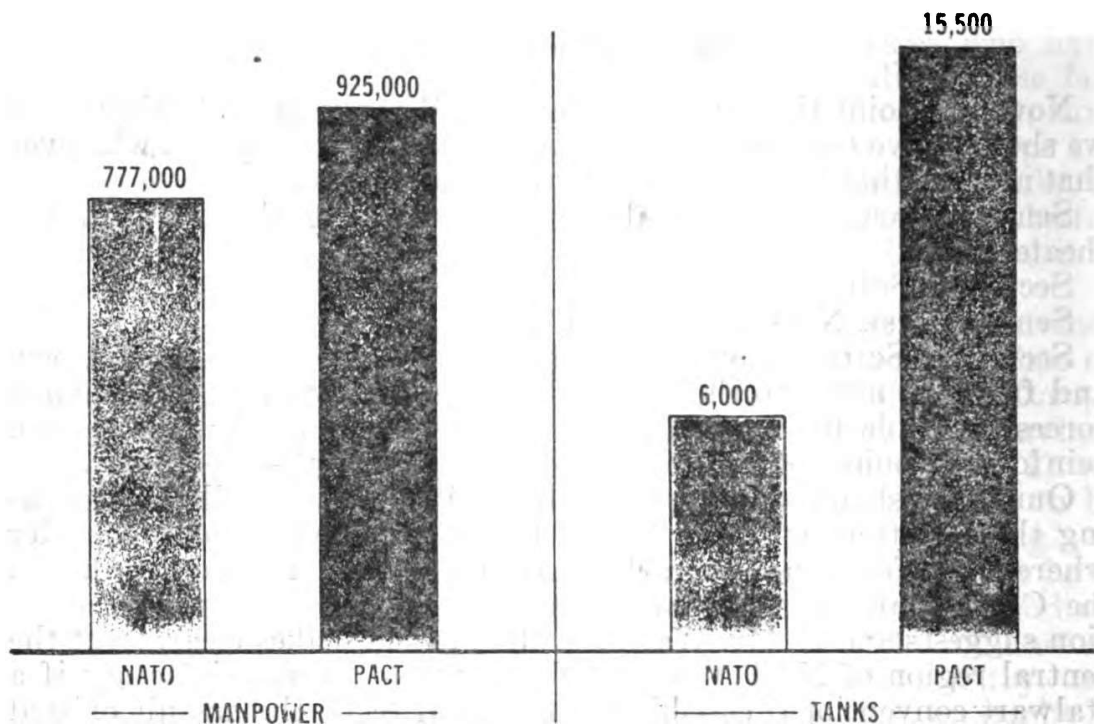
Would you comment on this, please, because if it isn't defensible then there is no sense of having anybody there except a couple of people.

Secretary SCHLESINGER. Quite right, and we are emphasizing to our allies at the present time that to the extent that we talk about an immediate and early recourse to nuclear weapons, that can be accomplished with a much smaller American presence than exists today.

The justification of an American presence does not rest upon a stalwart conventional capability, but the justification of the conventional presence of the size that the United States maintains does rest upon a substantial balance of numerical ingredients for a conventional capability.

[Chart follows.]

THE BALANCE FOR MBFR — NATO GUIDELINES AREA, EUROPE



At the present time, as the chart shows, there is some disproportion between the forces of the Warsaw Pact and those of NATO, though not such a disproportion that we cannot afford to hope that we could at least withstand an assault. But if the 195,000 American ground forces in Germany were removed, the NATO situation would turn drastically to the disadvantage of the West.

We need to improve and strengthen our conventional capability in Europe, and we are pressing our allies as forcefully as we can to make the appropriate additions to that capability which will have the additional consequence of demonstrating to the American public and to the American Congress that there is a desire to have a better balancing of the overall burden.

INCLUSION OF MIRV LIMIT IN SALT II

Senator CASE. Thank you, Mr. Secretary; how much time do I have, Mr. Chairman, if any?

Senator SYMINGTON. Some 5 minutes.

Senator CASE. The chart which you have, which is not visible, or is it visible in the back of the room?

Secretary SCHLESINGER. Yes, it is.

Senator CASE. It is a very thoughtful thing that you have done to have—

Senator MUSKIE. It is what I call a two-front war. [Laughter.]

Secretary SCHLESINGER. We will have options for any contingency, Mr. Chairman. [Laughter.]

Senator JAVITS. That is what we worry about, and money.
[Laughter.]

Senator CASE. I wish you would comment on several suggestions that have been made, Mr. Secretary, about possible areas in which agreements might be made for the reduction of forces. One of these is the question of whether it is still possible to limit testing and deployment of MIRV as a substantial item for negotiation and possible agreement in SALT II.

Secretary SCHLESINGER. I think, as a general proposition, we cannot head off deployment of MIRV's by the Soviet Union through a curtailment of tests at this stage.

Senator CASE. The importance of testing I think we all understand, at least my understanding, we can agree on testing and if it were useful this is something we can monitor by exterior means where deployment is not.

Secretary SCHLESINGER. Yes, sir. Where the missile has been proven to that point, we cannot prevent deployment by heading off testing. We can, however—we are hopeful—head off deployment of certain missile systems directly by adequate verification of the possibility of deployment.

SOVIET MISSILE TESTS

With regard to individual missile systems, it is our judgment that the SS-19 has had already such a degree of testing that curtailment of the tests would not preclude deployment. The SS-16 and 17 are in a more equivocal position.

Senator CASE. You already pointed out in other forums the enormous cost to the Russians of that switch over.

Secretary SCHLESINGER. Yes, sir.

Senator CASE. I think you said something like \$30 billion would have to be spent by the Russians.

Secretary SCHLESINGER. For a complete deployment in U.S. dollars, I think it would cost them between \$30 and \$45 billion, and probably toward the upper end of that spectrum. That is one of the carrots, I think, that Senator Javits referred to. If the Soviets could avoid that cost, it would be beneficial to the Soviet society.

MATTER OF ECONOMIC SAVING

Senator CASE. It seems to me, and I wish you would comment on this generality, that perhaps, that may be the only, certainly the best possibility of getting agreements on specific matters in SALT rests with the matter of economic saving. Neither of us is going to give up anything we think is essential to our defense, and to attempt to trade down is very difficult in terms of balancing arms. But surely there ought to be some incentive on the part of the Russians as well as ourselves for the saving of substantial amounts of economic wealth.

SECURITY ENHANCED BY NO FURTHER STRATEGIC FORCES BUILDUP

Secretary SCHLESINGER. Agreed, Senator Case, and in addition, there are the mutual advantages of enhanced security by not further building up the strategic forces on both sides.

What one side does the other side will match, and for that reason, as they build up those additional strategic forces in gross capability, the security of both sides is not enhanced but is diminished, if anything. Consequently, both sides are tempted, as Senator Muskie suggests, to take actions that, with the resultant counteraction, will diminish the security on both sides. But neither side can permit the other side unilaterally to make these kinds of advances.

Senator CASE. Thank you, Mr. Secretary.

My time is up now and I want to express appreciation to the chairman for his indulgence and hope perhaps we can continue after the first round with a little bit more.

POSSIBILITIES OF CONVENTIONAL DEFENSE IN NATO

Secretary SCHLESINGER. Mr. Chairman, might I augment an answer to Senator Case?

Senator SYMINGTON. Please, Mr. Secretary.

Secretary SCHLESINGER. Senator Case referred to the possibilities of conventional defense in NATO and, as I say, all of the allies are reviewing this matter in a more thoughtful way, I think, than they have done in the last decade.

It is important to stress that there are changes afoot. Dr. Enthoven's commentary pointed out the fact that there has been an unduly pessimistic attitude taken in the past that the Soviets and their allies were overwhelmingly strong in terms of conventional forces. I think that through improved intelligence assessments and through improved net assessments we are getting a better appreciation of that balance. It is not hopeless as is frequently suggested. The Soviets are not overwhelmingly strong.

Senator SYMINGTON. Senator Muskie.

Senator MUSKIE. Yes, thank you very much, Senator Symington.

NEW RETARGETING POLICY

As I look at the record of our closed hearing and as I listened to the discussion here this morning there is one ambiguity in my mind with respect to the accuracy and yield objectives of your proposal.

You seem to say that we can move to this new retargeting policy without any substantial new investment in weapons development and technology.

Is that true down the road? Or are you simply saying that we can shift now to such a policy without an immediate investment in new weapons development and technology? It seems to me that down the road, if there is no SALT agreement or no ongoing agreements, for example, that pursuit of that strategy will require a substantial investment in new weapons development and technology. I don't mean new weapons necessarily, but improvements at the very least. Would you clear up that ambiguity?

Secretary SCHLESINGER. Yes, sir. In the R. & D. area we are instituting expenditures this year which run around \$300 million. About \$100 million of that I think we would have to do under any circumstances to improve command and control.

The development of systems does not require the deployment of any systems. Improved accuracy would enhance the flexibility and the selectivity for the sub-SIOP options that I referred to. It is not essential to it, but it would improve it.

But that does not mean gross, massive expenditures on new forces. That is part of the sizing problem to which I referred earlier. We would have to respond if the Soviets were to fulfill the potentiality that this new generation of missiles provides for them. I continue to emphasize that I hope that they observe this.

Senator MUSKIE. I am puzzled by this because it seems to me that this retargeting policy is not going to minimize destruction of populations or cities unless the weapons we use are more accurate than they now are, and unless their yields are less. The destructive spread of these weapons, it seems to me, is going to involve the destruction of a lot of people even though the main target may be a missile silo.

It seems to me that pursuit of this policy must entail the development of more sharply targeted missiles and lower yield missiles so that you can make a surgical strike which will wipe out the missiles without destroying population. I wonder if you would address yourself to that point.

Secretary SCHLESINGER. Yes, sir. The reduction in collateral damage comes from the reduction in the numbers of weapons that might impact in such a hypothetical exchange on the soil of the Soviet Union. If we are talking about 5 weapons or 7 weapons as opposed to the impacting of 4,000 weapons, quite obviously the damage to the civilian fabric is reduced by several orders of magnitude.

But your question goes further with regard to the individual weapons which can reduce the collateral damage. In part, that is answered by the selection of targets to insure that those targets are not commingled with civilian populations to the best of our ability and, in addition, as your observation was made, to obtain the flexibility to use lower yield weapons as well as higher yield weapons. As we obtain greater accuracy, we would presumably obtain the ability to use those smaller yield weapons for just the precise objective that you have underscored.

Senator MUSKIE. How much of an investment will that eventually require?

Secretary SCHLESINGER. I can give you some off-the-cuff answers, Mr. Chairman, but I would think that over a period of years the investment would be on the order of several hundred million dollars a year. It would not lead to a substantial enhancement of our present strategic budget, which represents about 10 percent of our spending.

WILL POLICY INVOLVE DEVELOPMENT OF NEW MISSILES?

Senator MUSKIE. Could it conceivably involve the development of new missiles?

Secretary SCHLESINGER. I do not think that is necessary, Mr. Chairman, and we are not contemplating such development. The Minuteman III is quite satisfactory from this standpoint. It is an excellent missile for this purpose.

Our concern for a new ICBM is related once again to the sizing problem and the potentiality that I have underscored in the Soviet forces.

The relationship between yield and accuracy, as you know, Mr. Chairman, goes by the cube root, so that improving of accuracy by a half is equivalent in effect to increasing the yield eightfold.

As you know, the Soviet Union at the present time is driving for far greater accuracies than they have historically known, and their improvement in accuracy, given the higher yield weapons, can have a much more significant impact on the strategic balance because of the effects of degradation of accuracy in an operational context.

[Chart follows:]

Principles Affecting Throwweight vs. Accuracy Tradeoff Calculations

- 1. NO NATION WILL EVER KNOW PROSPECTIVE ACCURACY UNDER
OPERATING CONDITIONS AGAINST REAL WORLD TARGET SYSTEM**
- 2. EACH NATION WILL KNOW ITS OWN THROWWEIGHT**
- 3. THROWWEIGHT CAN COMPENSATE IN LIMITED BUT ADEQUATE
DEGREE FOR ACCURACY DEGRADATION TO BE EXPECTED IN
REAL WORLD EXCHANGE**

— Possible Inference: U S ought not tolerate in the long run
present 4:1 disproportion in throwweight vis-a-vis Soviets.

— Throwweight disparities would lead to an asymmetry
in the degree of confidence in reciprocal counterforce
capabilities—Both in physical terms and in the perception
of the power-political relationships.

But I should emphasize the point that I have put on the board, that no nation will ever know the prospective accuracy precisely under operating conditions against real world target systems. Each nation will know its own throw weight and, consequently, the yield of its weapons. Throw weight can compensate in a limited but adequate degree for accuracy degradation to be expected in a real word exchange.

Now I am not concerned about the present situation. I am concerned about the potentiality represented by 10 to 12 million pounds of throw weight that the Soviet Union could deploy by about 1982, within the framework of the SALT I Agreement were they not to observe the kinds of restraints which I think are implicit in the protocol and the basis of that agreement.

SALT II AGREEMENT

Senator MUSKIE. Was there indeed a failure in Moscow between Mr. Brezhnev and Mr. Kissinger to achieve any breakthrough or any understanding or any progress with respect to a SALT agreement?

Secretary SCHLESINGER. Mr. Chairman, let me make some general comments on that. I suggest that Dr. Kissinger is the appropriate person to address those questions because he is familiar with the details. I do not believe there was a breakthrough in Moscow, but I believe that there may have been an improved understanding on both sides and a clarification of certain issues that will be the paramount issues to be resolved in the course of achieving a SALT II agreements.

Senator MUSKIE. So you believe there is momentum.

Secretary SCHLESINGER. Yes, sir, and I would emphasize that momentum comes at a changing pace in all of these discussions of nuclear arms, and one should not overemphasize the immediate headlines of failure. I think that it is necessary for both sides to reach these deeper understandings of what are the major differences.

Senator MUSKIE. You pointed out that we do not need to mirror image the other side. One does not need essential equivalence of every category of weapon, but there is the necessity for both sides to understand the tradeoffs between different categories of weapons and come to some agreement so that overall essential equivalence can be understood. I believe that this will require a feeling out over a period of time and that for that reason one should not write off the Moscow discussions.

NEW SOVIET WEAPONS DEVELOPMENTS

Senator MUSKIE. Well, we will pursue that question with Dr. Kissinger. I know that he will be available when his current diplomatic activity comes to an end. [Laughter.]

And he has indicated a willingness to brief us in this area. But I thought I had to ask the one question as background to my next question. There has been considerable discussion in our closed session and in the press and elsewhere about new Soviet weapons developments. How would you describe the present Russian nuclear posture with respect to its new family of weapons? Were they a surprise? What do they reflect about Soviet strategy? What do they reflect about their SALT posture? What do they reflect about their own estimate of the balance between us? Do they believe that with these new weapons they are on their way to achieving superiority? Do they believe that the balance between us is such that from the military point of view—economic considerations aside—they don't need to try to win anything at the SALT conference. These are the questions which are on my mind.

Secretary SCHLESINGER. Yes, sir, and I may forget some of them so will you remind me.

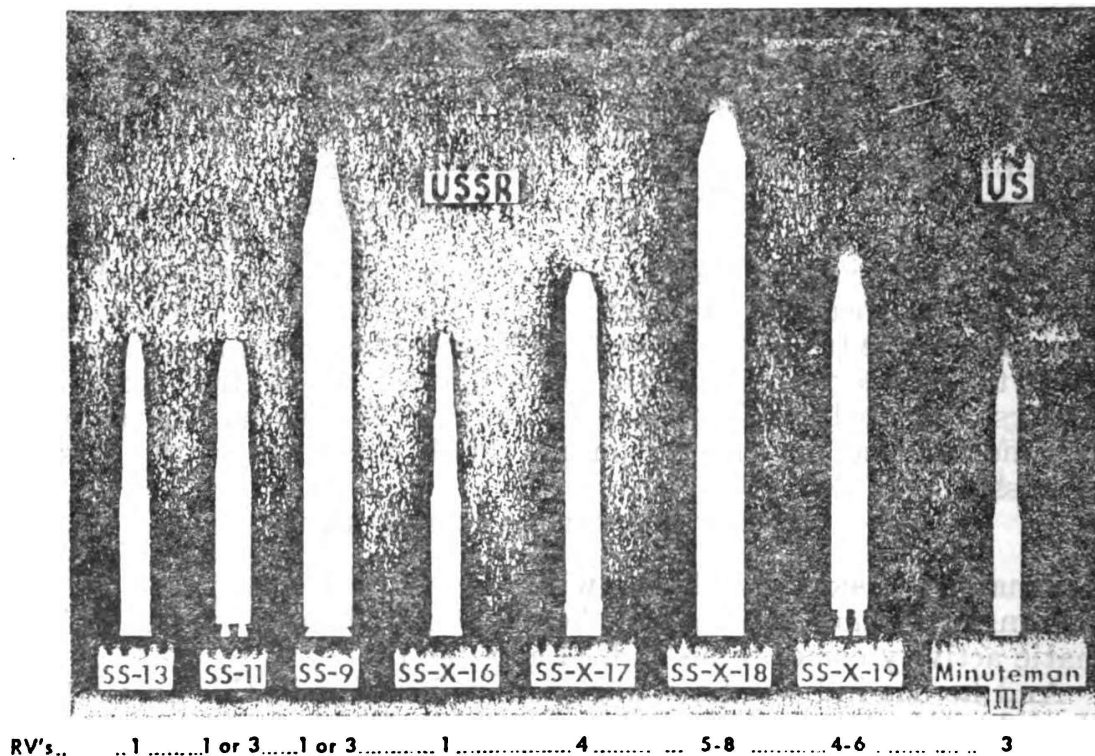
The Soviet forces have not surprised us in one respect. There were many who expected them to have a—I cannot avoid the word break-

through at this point—breakthrough into MIRV technology prior to the time that they did reach that last summer.

Last summer for the first time we were aware that the Soviets were using on-board computers, which is a dramatic change in the capabilities of their systems. To this point there has been a relative crudity, but substantial volume, in the Soviet forces. The use of on-board computers was a significant milestone. But, as I attempted to demonstrate, last summer it was an expected milestone and, consequently, no one should have been surprised.

[Chart follows:]

ICBM COMPARISON



What we have been surprised by, Mr. Chairman, is the breadth and the depth of that development program which includes the four ICBM's that we have discussed in the past and which are shown on this chart. It also includes two new model submarines, a new submarine missile, as well as the beginning of installation of MRV's on their older SSN-6.

There is an across-the-board pace, and this pace has manifested itself, for whatever bureaucratic and programatic reasons, after the SALT agreement in May of 1972.

That pace is a significant item, because not only can they exploit the six or seven million pounds of throw weight that they already possess in their second generation of missiles, but also these new missiles represent a substantial further increment in throw weight potentially available to the Soviets.

What we would have hoped to have done in the past was, by constraining the SS-18 deployment, to avoid major discrepancies in

throw weight between the United States and the Soviet Union in the context of the overall essential equivalence to which you referred. That is, we can tolerate and should tolerate discrepancies in one category of forces if the other categories of forces compensate for that. But this puts them in a position of potentially having a 6-to-1 advantage in throw weight over the United States' existing programs.

I do not believe that so large a discrepancy, given the greater comparative advantage at the present time of ICBM's, relative to SLBM's [Submarine Launched Ballistics Missiles], both for accuracy and for command and control, is something that the United States can tolerate.

RUSSIAN PERCEPTION OF THEIR POSITION

Senator MUSKIE. What has it done to their own perception of their position? Do they see that they have anything to gain militarily from SALT? Do they think they are on their way to nuclear superiority? You see it as a disadvantage to us. How do they see it?

Secretary SCHLESINGER. I think that there are varied viewpoints in the Soviet Union. There are those who believe that the route to security is by accepting what we refer to as essential equivalence with the United States. There are others who have the objective of obtaining, from their standpoint, strategic superiority. In addition to that, there is considerable bureaucratic momentum behind some of these weapons programs which, as you know, becomes a pressure that is sometimes difficult to deal with.

I would say that those in the Soviet Union who do not accept essential equivalence with the United States at a reasonably low level assign certain probabilities to the outcome. If the United States fails to react to the kind of massive deployment that I have indicated is possible, then they would have achieved a strategic advantage which could be described at least politically and possibly in a military sense by them as strategic advantage or nuclear superiority.

If they believe the United States cannot or will not react, that is a hope. If the United States does react, then of course, they will have achieved nothing. I think that it is incumbent upon us in the DOD, in the administration, in the U.S. Congress and the American public, to disabuse those in the Soviet Union who may hope to obtain nuclear superiority in this way and to make clear to them that this is a nonproductive path.

Senator MUSKIE. I think my time has expired.

Senator SYMINGTON. Senator Javits.

Senator JAVITS. Thank you very much, Mr. Chairman.

WHAT IS AGGRESSION?

Mr. Secretary, I note in your statement the concept of deterrence as the result of aggression very sharply emphasized as an element of our doctrine on what is the forward zone of contact, to wit, Europe. For example, you say:

In keeping with the flexible response strategy, we do not rule out the use of nuclear weapons by the United States and its allies if necessary to contain and halt major "conventional aggression."

Then in the next paragraph you speak of "deliberate aggression."

Then by the time you get down to the last paragraph you are down to plain aggression.

Now what is aggression, what is the aggression you are talking about, and for me to make it a practical question, is it naked aggression like Hitler launched against Western Europe in 1939 or does it include also, for example, the following hypothetical situation: Italy, which has a very large Communist party, goes united front. It includes Communists in its government. The Communists appeal to the Soviet Union on the ground that the workers of Italy are being suppressed. The Soviet Union, invoking the Brezhnev doctrine, gives various orders to Italy and orders it to carry them out on pain of being invaded. Is that aggression?

Secretary SCHLESINGER. I think there is some ambiguity in that case, Senator Javits, and one would have to be exceedingly precise. It depends on the attitude that would be taken by the Italian Government at that time. NATO agrees that an attack on one is regarded as an attack on all. The circumstances that you spell out are somewhat ambiguous and I cannot give a precise answer.

I can give a more precise answer to the earlier observations that you made. When we speak here of deliberate aggression, that is not intended to be in any way a matter of equivocation. We are talking about a massive military assault against Western Europe, and those would be the only circumstances that the United States would contemplate the use of nuclear weapons, tactical or strategic in response. It would have to be, in the judgment of our leaders at that time, a very clear-cut case to which the United States was responding. We certainly would not use our weaponry and I think this was an aspect of your question—to bring about a peaceful alteration in the composition of the government of one of the member states of the NATO alliance. That government would have to call upon its allies in the kind of circumstances that you refer to.

Senator JAVITS. Does the concept of what is aggression justify stirring us into action properly belong in the strategic doctrine of the United States, in your judgment?

Secretary SCHLESINGER. I believe that is an issue that must be dealt with one way or another in the overall strategic doctrine of the United States.

Senator JAVITS. I think it is an important question and a critically importance answer, to me decisive answer, because that is what got Europe on its ears. That is what Europe is in real doubt about because you have named a naked and simplistic situation, which probably will never occur. The Russians aren't that stupid. You can lean on Europe very heavily, and Europe will respond because she doesn't want to be obliterated to oblige us so that she can qualify for aggression. So it could be blockaded, it could be subjected to unbearable political action, it could be any one of a dozen scenarios that I could offer for you if we were playing a war game, but I am very glad to hear you say what you do.

If the definition of aggression belongs as an essential element of our strategic doctrine, has this been a matter of consultation with Europe? I am not going to ask you what it is because I don't think

you ought to testify to that in open session. But has it been a matter of consultation with the Europeans, how we define aggression which would justify us in acting.

Secretary SCHLESINGER. Yes, sir, since the inception of the treaty and the provision of weapons overseas in the fifties, this has been a central issue for NATO, which is, as we all recognize, a defensive alliance.

RELATIONSHIP WITH CONGRESS

Senator JAVITS. Would you feel there is a proper relationship with the Congress in which you should have advice and consent, so we know what is in your mind and what is the U.S. attitude of it up to now and what is the NATO response?

Secretary SCHLESINGER. Senator Javits, I am always prepared, under the appropriate rules of classification, to respond to any question from the hill to the best of my ability.

Senator JAVITS. Would you need the permission of the President for this or are you in position to respond when we are in executive session?

Secretary SCHLESINGER. I believe I am in position to respond.

Senator JAVITS. Good. I would just like to lay that aside and I hope, Mr. Chairman, we will take advantage of this invitation or agreement, as I really from my own experience in Europe know of nothing more important that could stabilize our relations with Europe than this particular proposition. So I hope, Mr. Chairman, and I request that an opportunity be given for the Secretary of Defense in an appropriate framework to respond.

Senator SYMINGTON. Yes.

Senator JAVITS. Thank you.

Secretary SCHLESINGER. Senator Javits, I think we could lay out the whole notion of flexible response which is now enshrined as NATO joint doctrine, and I think that this will help—

Senator JAVITS. Good.

Secretary SCHLESINGER. [continuing]. Reduce any ambiguities that exist. Of course, we know that ambiguities can never be entirely eliminated.

REPORT OF COMMITTEE OF NINE OF NORTH ATLANTIC ASSEMBLY

Senator JAVITS. Now, Mr. Chairman, if I have a minute or two left I would like to direct your attention, Mr Secretary, to the report of the Committee of Nine of the North Atlantic Assembly which dealt with the questions of strategic doctrine, and in item 14 of its recommendations on security I would like to read to you the following two sentences and get your comments, and I will give you a copy, I am sure you have this document which you should have:

The possibility of using tactical nuclear weapons against an aggression on the European members of the Alliance must remain an option for such defense. This is the meaning of deterrence—

And mark these words:

And there is no deterrence if it be known in advance that the deterrent will under no circumstances be employed. This is just as true of tactical nuclear weapons as it is of strategic nuclear weapons.

Question : One, your comment on that finding and, second, have we done anything or are we doing anything which would represent a commitment in advance that under no circumstances will we employ tactical nuclear weapons in the defense of Western Europe.

Secretary SCHLESINGER. Those questions go to the very heart of these issues, Senator Javits. Let me commend the clarity of your prose and that of your colleagues on the committee. I think that is superbly expressed. To the extent that we have deterrence, it must be based upon a credible course of action and if it is no longer a credible course of action, then deterrence disappears. It does not fail, it simply disappears. The report of the Committee of Nine superbly underscores that aspect.

Senator JAVITS, in no way—in no way—has the U.S. Government suggested that under the circumstances that you hypothesize would there be any agreed on prior arrangement which would preclude our use of tactical nuclear weapons.

In paragraph 6 of the agreement that was reached between Mr. Brezhev and Mr. Nixon last summer, it quite specifically stated that nothing in that agreement would reduce the obligations of either party to its allies. There is, I think, an improved vehicle of communication which we hope would be utilized under such circumstances so that a potential foe would know that we are moving into an area that could lead to the exchange of nuclear weapons. But nothing precludes the use of tactical nuclear weapons or strategic weapons in the support of our allies.

Senator JAVITS. I thank you, Mr. Secretary, and our Committee of Nine understood that and, if I may have 30 seconds more, I would like to read into the record their finding:

Finding No. 7. The Soviet-American agreement on the prevention of nuclear war, signed in Washington in June 1973, clearly contemplates no nuclear conflict, but it is conditioned on the fact that two states—

To wit the United States and the USSR—

Proceed from the premise that each party will refrain from the threat or use of force against the other party, against the allies of the other party and against other countries. This statement confirms the intention of the United States to maintain the credibility of its nuclear deterrent.

Thank you, Mr. Chairman.

Senator SYMINGTON. Senator Sparkman.

LIMITED TACTICAL NUCLEAR WAR

Senator SPARKMAN. Thank you, Mr. Chairman.

There are things I can't grasp about nuclear weapons and the deployment of them. I have not given the study and attention to it that Senator Symington has, who is on the Joint Committee on Atomic Energy, the Armed Services Committee, and on this committee, and he has done a tremendous amount of work. And Senator Muskie is head of the Arms Control Subcommittee.

But I want to ask this question: We speak often of a limited tactical nuclear war. How can there be a limited nuclear war? You are not going to start out by a gentleman's agreement between the two sides, are you?

Secretary SCHLESINGER. No, sir.

Senator SPARKMAN. Won't it almost invariably go into an all-out war?

Secretary SCHLESINGER. I do not believe so, Senator Sparkman. I should stress that the credible course of actions that we have outlined are intended to deter war; that we do not contemplate nuclear warfare either limited or otherwise; and that we hope that deterrence will be effective. But should there be a breakdown of deterrence, there will be very powerful incentives on both sides to restrain the destructiveness of the use of nuclear weapons, and to come as rapidly as possible to the termination of not only the war but also the causes of war that led to that hopefully small-scale use of weapons. Those are very powerful forces because they relate to the very survival of the societies that have placed themselves at risk under those hypothetical circumstances.

Senator SPARKMAN. In other words, the dread of each side of the destruction that might come to it is itself a deterrent force.

Secretary SCHLESINGER. That is precisely correct, Senator. The underlying premise of what we have discussed in this new strategic doctrine is that even into a hypothetical wartime period we could continue to have the effectiveness of what we call intrawar deterrence; that for both sides there would be no purpose to be served to bring about the massive destructions of population. This could be, in effect—not by agreement, but in effect—a mutual agreement on the doctrine of open cities which has existed in times past in international law.

INTEREST OF EUROPEAN ALLIES IN STALWART CONVENTIONAL CAPABILITY

Senator SPARKMAN. In your statement you say that the European allies, and I quote "are now more interested in a stalwart conventional capability" for NATO.

What do you base that upon?

Secretary SCHLESINGER. I base it on my continued discussions with the NATO Defense Ministers and my more occasional discussions with European military officers.

I think that Senator Symington made an observation earlier with regard to what Dr. Enthoven had said, that there has been a proclivity to overstate for precautionary reasons the size of one's possible foe. This has been used. I believe, in other countries as a parliamentary device, as a way of eliciting greater support for programs when popular support for the defense establishments was weak. But this had the disastrous effect—I think Dr. Enthoven was eloquent on this issue—of resulting in a feeling of despair and a feeling of hopelessness, that the potential foe was overwhelmingly strong. I think that a careful intelligence analysis indicates that while the potential foe does have some advantages, it is not overwhelmingly strong. I think that, by and large, this is generally recognized throughout the alliance.

Now, the last time that this subject was discussed in depth, in the period before the Vietnam war, our European allies reacted adversely to the discussion of the conventional balance because they saw it as a

way of the Americans withdrawing the pledge of nuclear support, either tactical or strategic. They were sufficiently suspicious of our motives at that time that they did not react in the progressive way that we are getting at the present time. Throughout the alliance, nations that have been skeptical in the past are now reviewing the data, and this review is publicly taking place in the mutual balanced force reduction exercise at Vienna, on which we have agreed numbers with our allies. Furthermore, if one listens to the Soviet statements at Vienna, they do not perceive themselves to be overpoweringly strong in terms of conventional capabilities.

MUTUAL BALANCED FORCE REDUCTION NEGOTIATIONS

Senator SPARKMAN. I wanted to ask you a question on that. How optimistic are you of your success in mutual balanced force reduction negotiations that are taking place?

Secretary SCHLESINGER. I believe that reductions will take place, Senator. I am hopeful that they will take place. I am perhaps inclined to be a little less optimistic about the timing of those reductions because less progress than was hoped for was made at the Moscow meeting between Dr. Kissinger and the Soviet leaders. But I think once again in this area it stands to reason for both sides to reduce their forces.

Senator SPARKMAN. I am very hopeful with reference to that program, and I think it is the best way to get to some kind of reduction of our own forces, NATO forces, the U.S. forces, and forces of the Warsaw Pact.

IS NATO FORCE WELL-BALANCED?

Do you feel that now we have a well-balanced NATO force, both as to the ideas of the NATO nations and also as against the Warsaw Pact forces?

Secretary SCHLESINGER. Not as yet, Senator. I think that we have had a substantial improvement in our mutual understanding within the alliance and, therefore, that we are beginning to look at the overall strategy with a common vision. That is a prerequisite to having the kind of deployment of forces and the use of resources which would be essential to the balance to which you refer.

I think that on the forces side we need to have some improvements and some readjustments that would strengthen the overall defense capabilities. Some of these are now being discussed with our allies.

Senator SPARKMAN. I could ask you more questions, but two more members of our committee have come in and we have a rollcall at 12 o'clock, so thank you, Mr. Chairman.

VIEW THAT NEW TARGETING PROGRAM LOWERS NUCLEAR THRESHOLD

Senator SYMINGTON. Thank you, Mr. Chairman.

Mr. Secretary, before yielding to Senator Percy, I would make this observation: From my standpoint one of the basic reasons for the importance of these hearings, you are one of the more articulate

people in advocacy of your position, and I have great respect for your opinion. I hope you have some for mine. I have been involved in this field now for 29 years in the Government. In my opinion, the new targeting program that you are suggesting lowers the nuclear threshold and increases the possibility of the beginning of nuclear weapons use in war, and that, I think, is most unfortunate because I agree with President Eisenhower when he stated some time back that future all-out war was unthinkable.

Inasmuch as I do feel you are lowering the threshold I am glad we are having this chance to debate it before the American people.

Secretary SCHLESINGER. Senator, I appreciate that observation. One of the purposes for which we want to enhance the conventional capability is to raise that nuclear threshold. To the extent that we have to rely on early recourse to nuclear weapons, we are in trouble.

I am a great admirer of your views, Senator, and I take this message of a prior Secretary of Defense:

We ask you not to put the entire future of the United States into a number of buttons that would be pressed in case of war. We ask you to consider also that the greatest machine ever built is the mind of man himself and that he be given the right of discretion as to where the weapons will be used.

That is the whole purpose, Senator, of spelling out these options.

Senator JAVITS. Mr. Chairman, would you yield for one momentary observation?

Senator SPARKMAN. Mr. Secretary, I wonder if you could tell us whose words those were.

Secretary SCHLESINGER. Senator Symington's.

Senator SPARKMAN. I know it. I thought it ought to be on the record.

Senator SYMINGTON. With all due respect to the Secretary, I do not think it pertinent to my observation.

Secretary SCHLESINGER. Senator——

Senator SYMINGTON. My time is up. You and I can discuss that later. You are a very articulate gentleman, but the basic situation, from what I know about it in all the years I have spent on this problem, is that the more you lower the kilotonnage of these weapons, the more you disperse them around the world, the more you make them common practice for utilization of our services and those of our allies, the greater the chance of their going off and the world blowing up.

I yield to Senator Javits.

CHEMICAL WARFARE IN WORLD WAR II

SENATOR JAVITS. Just to say one word. I served in the Chemical Corps in World War II, it has not been mentioned and I think it is very pertinent, that we were absolutely loaded with gas in World War II and so was the enemy, and yet it was not used. I think this is a pertinent point in respect of past experience. Thank you, Mr. Chairman.

Senator SYMINGTON. Senator Percy.

Senator PERCY. I am very sorry, Mr. Secretary, that weather problems in the Middle West delayed my arrival here this morning.

Senator CASE. Would the Senator yield for just one moment, further developing the point of Senator Javits, the point there was the doctrine on both sides was the doctrine it would never be used unless the other side used it first, is that correct?

Senator JAVITS. That is correct.

Senator CASE. So this prevents it being an analogy to the flexible targeting as a means for a variety of options in meeting the defensive needs of the country.

THRESHOLD PERHAPS ALREADY LOWERED PSYCHOLOGICALLY

Senator MUSKIE. Would the Senator yield for one observation I have been waiting to make for the last 5 minutes which fits into this.

Senator PERCY. If the Secretary would like to make any observations on these observations, I will yield him all the time he would like. [Laughter.]

Senator MUSKIE. I think another perspective on the point that Senator Symington is making with such obvious feeling is this: That whether or not this new strategy is designed to lower the nuclear threshold, it seems to me at the very least to reflect the fact that perhaps the nuclear threshold has already been lowered; that both sides now are less horrified by the prospect of nuclear war; that both sides are now more willing to consider the use of tactical nuclear weapons. You have emphasized this point over and over again: that this is a psychological problem as much as a military one, and that perhaps what has happened is we have lived with this horror so that nuclear weapons have now become more usable, more respectable, less of a deterrent of any dimension. This is of more concern to me, really, than the intention you might have in mind of lowering the threshold, because I don't think that is your objective. I think that the proposal perhaps reflects the fact that the threshold has already been lowered psychologically.

Secretary SCHLESINGER. I think that the decision to use nuclear weapons, whether tactical or strategic, would be the most agonizing that any political leader could take. Those decisions would be taken only by responsible leaders under conditions of extreme national urgency.

IMPORTANCE OF MAINTENANCE GENERAL PURPOSE FORCE CAPABILITIES

I think that Senator Javits' quotation from the Committee of Nine deals intimately with the issue. On the other hand, from the standpoint of avoiding the inherent threat of nuclear war, we would like that threshold to be as high as possible. On the other hand, if one establishes the threshold at a very high level so it becomes incredible, it ceases to serve the purposes of deterrence and, as Senator Javits and the other members of the committee indicated, when one ceases to have a credible course of action, deterrence tends to disappear. So one is always in this ambivalent position, and the questions that you raise are quite pertinent. We do not want to have recourse to nuclear weapons, and it is for that reason that the Department has laid continued stress on the importance of maintaining of our general

purpose force capabilities, including the general purpose forces and conventional forces of the NATO alliance. That raises the nuclear threshold. If we have a stalwart conventional capability in Europe, then we are less likely to have to face that choice of having to initiate the use of nuclear weapons.

Now, in order to have an effective deterrence, we have to have an effective deterrence, we have to have a suitable alternative. We cannot rely upon the short-term good will of potential adversaries. So we agree that through the appropriate structuring of our forces, we should keep that nuclear threshold as high as possible, so long as it is understood that under circumstances of extreme urgency we would indeed use nuclear weapons.

Senator SYMINGTON. Senator Percy.

SECOND ABM SITE PERMITTED BY SALT AGREEMENT

Senator PERCY. Mr. Secretary, I would like to ask first what the intentions of the Department would be with respect to the second ABM site that is permitted by the SALT agreement. Does the Defense Department intend to move ahead with the national command authority ABM or, if not, why not or, if so, why?

Secretary SCHLESINGER. That is one of the carrots to which Senator Javits referred in his opening remarks. I think that a second ABM site would serve very limited utility for both sides and, therefore, we have indicated, through our refraining from requesting funding for a second site, that if the Soviet Union also refrains from starting construction on a second site, both sides can avoid the expense and the psychological implications of further deployment of an ABM system. That is one of the carrots.

Once again we are holding out these possibilities. We cannot know whether they will be accepted. We hope that the Soviets will not deploy a second site and we will refrain from deploying a second site.

EFFECT OF DEVELOPMENT OF SMALLER, CLEANER NUCLEAR WEAPONS

Senator PERCY. Would the development of smaller, so-called cleaner weapons blur the distinction between conventional and nuclear ordnance, so that these weapons might become regarded as not much worse than conventional weapons, or lead us back to the 1950's concept that nuclear weapons are simply "better weapons" with the result that a decision to breach the nuclear barrier would appear less awesome? Is it not possible that the availability of smaller, cleaner nuclear weapons might lead, as Mr. Warnke has suggested, "to their premature and unnecessary use"?

Secretary SCHLESINGER. It is conceivable; it is possible; and in this regard I think that one must rest upon the sense of responsibility of those in authority. Crossing the nuclear threshold is a step that no one could take lightly, particularly under the circumstances that exist today with bilateral nuclear capabilities, as opposed to the circumstances in the 1950's to which you refer and in which the United States had an unilateral advantage.

Under those earlier circumstances, it might have been effective from a military standpoint to regard nuclear weapons as an adjunct to conventional forces. I do not believe that responsible leaders would regard them as an adjunct under today's circumstances.

PURSuing IMPROVEMENTS IN PRECISION IN CONVENTIONAL WEAPONS

Senator PERCY. Considering we do not have unlimited funds, Mr. Secretary, can you say whether, in the development of "smart bombs," image-seeking ordnance, air-dropped missiles, surface-to-air missiles and antitank weapons, it is more cost effective and less risky than the development of mininukes? Or is the program to go both routes?

Secretary SCHLESINGER. I believe it is more cost effective and serves better to hold up the nuclear threshold, to which Senator Muskie addressed himself, to pursue these improvements in the precision of conventional weapons. We are pursuing them. This does not necessarily mean that the appropriate thing to do is to pursue them exclusively, but we are putting greater emphasis on developing more precise conventional weapons than we have on these more precise and smaller nuclear munitions.

The initial observations that I made refer to our desire to have the same kind of flexibility on the tactical nuclear side as on the strategic nuclear side in order to avoid collateral damage, as Senator Javits has indicated, and the devastation of Europe through major use of imprecise munitions. It is for that reason that we feel a limited—a limited and let me underscore that—stockpile of precise nuclear munitions can add to deterrence. But we would not have to replace the stockpile on a one-for-one basis. I think this is a point that should be stressed before these committees, and particularly before Senator Symington's committee, which has expressed such interest in this matter. What we would want to have under those specified circumstances is a limited number of highly secure, invulnerable or less vulnerable, precise nuclear munitions that could be used, hopefully in the area of the battlefield, but which would not have the potentially devastating effects on the population of Europe. A small capability of that sort is something that we are pursuing in a planning sense. We have made no production decisions.

Senator PERCY. Then the higher priority is being assigned to the development of more sophisticated conventional weapons.

Secretary SCHLESINGER. Yes, sir.

Senator PERCY. And R. & D.—research and development—continuing in that area.

Secretary SCHLESINGER. Yes, sir.

VIABILITY OF FLEXIBLE RESPONSE DOCTRINE

Senator PERCY. The doctrine of flexible response adopted in December 1967 left open the possibility that the NATO alliance would initiate the use of nuclear weapons if necessary. But some observers, such as Mr. Warnke, point out that the discussion that had gone on in NATO in the 1960's, and I quote his words, "had served to

convince the Europeans that tactical nuclear war was not in itself a viable option." If tactical nuclear war is not a viable option, how can flexible response be a viable strategy then?

Secretary SCHLESINGER. Well, there is understandable ambivalence with regard to tactical nuclear weapons in Europe, an ambivalence with which we must deeply sympathize.

The American thrust repeatedly over many years, has been to improve the conventional capability so one would not have to have recourse to those weapons. There is a kind of thought, a type of thought, in Europe which emphasizes what is referred to as deterrence through maximum threats, akin in the tactical nuclear area of a threat to go against Soviet cities.

If you make the threat big enough the probability of implementing it can be close to zero and there will be deterrence. Therefore, many Europeans have urged reliance, and early reliance, on nuclear weapons and have postured their forces so as to drive NATO toward an early recourse to nuclear weapons as a way of enhancing deterrence.

In brief, Senator Percy, I believe that Mr. Warnke's analysis of European opinion is not correct. In a way I wish it were more correct because that would enhance European efforts to improve the conventional capability.

SOVIET CONCEPT OF POSSIBLE FUTURE WAR

Senator PERCY. In your colloquy with Senator Sparkman you were talking about Soviet concepts. In *Ordnance Magazine* in June 1970, it is stated: "The Soviets still adhere to the strict 'nuclear firebreak' theory that any use of nuclear weapons will trigger a general nuclear war." And: "There has been little indication in recent Soviet military literature to suggest that they have seriously considered concepts such as controlled nuclear response." In their view it is apparently all or none.

Would you care to comment further on that point, because our feeling as to what the Soviets have as a concept of a possible future is, of course, very important.

Secretary SCHLESINGER. I think that is quite correct, Senator Percy.

In their exercises the Soviets have indicated far greater interest in the notions of controlled nuclear war and nonnuclear war than has ever before been reflected in Soviet doctrine. As I indicated earlier, I think the doctrine is undergoing change. Also the, doctrine does not necessarily control actions during a moment of truth in which national survival is at stake. But, as I responded to an earlier question, I believe by Senator Muskie, if the Soviets were to believe that nuclear war must inevitably go all the way, and if they believed that the NATO alliance did not share that conviction, then they must treat the deterrent of the NATO alliance with additional respect and wariness. Therefore, even in that contingency, I think that the psychological factors point in the direction of the enhancement of deterrence, which is our ultimate objective.

AGREEMENT WITH GERMANY ON BALANCE OF PAYMENTS OFFSETS

Senator PERCY. I certainly commend you, Mr. Secretary, on wrapping up the agreement with Germany on balance of payments offsets. When will we have the full details of that agreement?

Secretary SCHLESINGER. The full details are just being worked out. I would think these will be available within a matter of weeks, Senator Percy. I would hope in a matter of weeks.

Senator PERCY. I made the statement the members of this committee would be satisfied when West Germany would be paying its fair share of NATO costs.

Secretary SCHLESINGER. Foreign exchange costs.

Senator PERCY. In your judgment does it meet that standard?

Secretary SCHLESINGER. May I say, Senator Percy, that while you were quite generous in your credit to me, the credit belongs to Secretary Shultz, who has done yeoman work in this area, very persuasively. I believe that with these other purchases by European states that we expect, we will have complied or are very close to complying with the requirement, but I cannot give you a very precise answer. We are either close to the line or over the line.

Senator PERCY. May I express the hope it does not involve more loans?

Secretary SCHLESINGER. Would you accept subsidized loans?

Senator PERCY. Loans are loans are loans. They have to be paid back. It is just a deferral of the paying. However, I do think progress has been made.

Senator SYMINGTON. Senator Pell.

CHANGE OF TARGETING

Senator PELL. Thank you, Mr. Chairman.

As I understand it, what you are advocating is not so much a change of capability or a move from strategic to tactical, but basically a change of targeting so that if the administration felt the necessity to go nuclear, they would try to take out the opponent's military capabilities rather than their civilian populations. Isn't that in essence what you are advocating?

Secretary SCHLESINGER. We are not necessarily talking about targeting military capabilities. We are talking about selective strikes. They might be against economic targets if that seemed warranted, as opposed to military targets. What we are talking about is preplanning for very much reduced nuclear use.

Senator PELL. But do we not now have the capability, with some adjustment without weapons, of targeting pretty well where we wish? Isn't that really what the administration is doing? Perhaps this is desirable, but I have not made up my mind on it yet. Targeting is usually a matter of deep secrecy insofar as military plans for the future go, and what you are doing now is removing the secrecy from your normal planning. You are waving a flag at the enemy that your targets have changed, and this is really an international political exercise more than a change in actual military strategy.

Secretary SCHLESINGER. No, sir, I would not agree with that in its entirety. The first point that I would mention is that this does require some additional adjustment of our forces, particularly in the command and control area, to which we have referred previously.

Also, I would underscore that an improvement of accuracy with the possibility, as Senator Muskie has suggested, of reduced yields would augment the possibilities in selective and flexible response.

It is a change not so much in terms of military hardware as a true change in military strategy. The options that had been previously developed over the years were really quite massive. Therefore, in our military planning we are exploring a much lower end of the spectrum although, as you suggest, this does not necessarily require a substantial change in hardware. But there is a change in military strategy. I think that it is necessary for the sake of deterrence. The American administrations have always attempted to lay bare the calculations on which deterrence rests. This is a continuation of that tradition.

The American public should know these calculations. In addition, there should be no misunderstanding on the part of other parties around the world—the West Europeans, the Soviets, the Chinese, the Japanese—about these calculations because they must not have the illusion that the United States is self-deterred because of the threat to its own cities.

FALLOUT EFFECTS

Senator PELL. Is it not true though that a total exchange of a strategic exchange would have fallout effects that would make the northern hemisphere uninhabitable for mankind?

Secretary SCHLESINGER. No.

Senator PELL. A total exchange.

Secretary SCHLESINGER. I do not believe that is correct. It would not be uninhabitable, but a total exchange would be devastating in its consequences, given the weaponry that is available.

Senator PELL. I am thinking about the fallout effect, not the blast.

Secretary SCHLESINGER. The fallout effect would be severe. We cannot estimate with precision the biological effects or the ecological effects of dumping 10,000 megatons on one country and another country. Those effects would be severe and they probably would be incalculable in advance with a high degree of confidence.

Senator PELL. And they would also pass national borders.

Secretary SCHLESINGER. Yes, sir, depending on wind conditions.

Senator PELL. Right.

Now, won't the danger—

Secretary SCHLESINGER. But in an attenuated form, of course. The effect would diminish with distance.

TACTICAL NUCLEAR WEAPONS AS RESPONSE TO CERTAIN CONVENTIONAL ACTIONS

Senator PELL. The danger that I see in your changing view is that it will mean the temptation to use nuclear weapons will be greater because you say, I think, no civilian leader now in his right mind would want to go nuclear on a first strike basis. But what you are suggesting is that in response to certain conventional actions, war-like actions, we would be willing to respond with tactical nuclear weapons. Is that not correct?

Secretary SCHLESINGER. Well, we have always been in that position.

Senator PELL. Right.

Secretary SCHLESINGER. We have never renounced the use of tactical nuclear weapons and that has been a part of NATO strategy for approximately 20 years.

Now, I do not regard the initiation of use of tactical nuclear weapons as a very tempting proposition for any political leader under any circumstances, but particularly against another nuclear power which has a substantial inventory.

Senator PELL. But you would agree that the strategy you are suggesting would increase the possibility of responding with tactical nuclear weapons?

Secretary SCHLESINGER. Not the overall strategy, as Senator Case and Senator Javits both emphasized. We must look at these things as components of an overall strategy.

I referred earlier to the NATO triad. What we have put chief emphasis on is to improve NATO's conventional capability so that nobody would be tempted to start anything. We think that may be the lowest point, as it were, in deterrence across the entire spectrum of risk. Through that mechanism we hope to diminish any pressures for an early recourse to nuclear weapons.

Senator PELL. This is a debate that I think many of us have sought to understand and seeking to follow and we just have not made up our minds.

SECRECY SURROUNDING NUCLEAR WEAPONS DEPLOYMENTS

Two further specific questions: What is the rationale for the secrecy surrounding the fact that we have nuclear weapons deployed in certain nations when the agreements under which those deployments have been made are public knowledge? In other words, why shouldn't Country *x* know that American nuclear weapons are there when the base agreement has been drawn and it has been in the press and it is general knowledge?

Secretary SCHLESINGER. I think if the country concerned and the alliance were to agree to that, we would have no objection with regard to the numbers being publicized, but not the storage sites and the types of weapons concerned. We discuss in as general a way as we can what the issues are and we are prepared, of course, to give you a precise location briefing. As I indicated in response to Senator Symington's question, 7,000 is approximately the right number for Europe. A very significant fraction of that is located in Germany. Some are scattered around elsewhere. We have a relatively limited number of ADM's. We have a larger number of nuclear rounds for our artillery, and a still larger number of bombs and missile warheads. We also have a smaller number of air defense weapons and some ASW weapons. I would like to give you the general characterization of the stockpile. We have discussed these matters with our NATO allies. They are reluctant to have public release of this

information. We respect their views on that.

ADVISABILITY OF MOVING AHEAD WITH COMPREHENSIVE TEST BAN TREATY

Senator PELL. Finally, what would be your view, Mr. Secretary, with regard to the advisability of moving ahead with a comprehensive test ban treaty?

Secretary SCHLESINGER. As I have discussed in closed session, I see advantages and disadvantages in that area. As we see it, the disadvantages from the standpoint of the United States are that we have much smaller throw weight missiles and, therefore, we rely upon advanced nuclear technology to compensate for the grosser throw weights that the Soviets possess. In addition, in response to the observations of Senator Case and Senator Javits, we retain an interest in the area of developing more selective, precise, tactical nuclear weapons which minimize collateral damage.

Senator PELL. But, excuse me, is it not correct in testing nuclear weapons you can test for accuracy without using an actual nuclear explosion?

Secretary SCHLESINGER. That is correct, absolutely.

Senator PELL. So that would not conflict with a test ban treaty if you are just testing for accuracy; you are not just testing explosive forces.

Secretary SCHLESINGER. Quite correct, I was talking of the package as a whole. Under those circumstances, if we were seeking to reduce collateral damage, a nuclear explosive device would have to be tested before it could be put into inventory. Those are, as it were, the disadvantages.

I think that the advantage is that you would have a momentum or a continuation of a momentum, toward improved relations and constraints on new developments. I think that there are political and psychological advantages there. I don't know where to draw the balance, but I will lay out the calculations.

Senator PELL. Thank you very much.

Senator SYMINGTON. Thank you, Senator.

GERMAN VIEW ON TACTICAL NUCLEAR WEAPONS

Mr. Secretary, in response to Senator Percy's question you said Mr. Warnke did not understand the German view on tactical nuclear weapons.

Secretary SCHLESINGER. Yes, sir.

Senator SYMINGTON. Last fall our staff went over to Germany and quoted in a report to us the present German Defense Minister as saying in a press conference, and I quote: "The first use of nuclear weapons would mean a change in the kind of war being fought, and one should really not draw important distinctions between the various kinds of nuclear weapons." Minister Leber also said that even the use of a "single atomic hand grenade" would cause escalation to the most powerful nuclear weapons. How can the Europeans expect the Soviets to assume that NATO would use tactical nuclear weapons, when the desire of Europeans such as the German Defense Minister, to avoid the use of such weapons is so evident?

Incidentally, I was surprised to learn, despite the very heavy amount of money we have invested in nuclear shells for 8-inch and 155 mm. and going into production, we yet have no signed agreement with the Germans to utilize those weapons on German territory.

I mention that in connection with this statement because I was told in the hearings before the other committee that the place we would use said weapons would be primarily Germany.

How do you criticize Warnke's position as against what this Defense Minister says? Also, have we an agreement with the Germans to use these weapons, a signed agreement?

Secretary SCHLESINGER. As I indicated earlier, there is a natural ambivalence in Germany regarding the first use of nuclear weapons. I believe Minister Leber's comment concerned the difference between ADM's and other weapons, and that there has been concern in Germany about the prechambering of ADM's.

Senator SYMINGTON. It came up in the discussion of mininukes.

✓ Secretary SCHLESINGER. Right. He has a problem with regard to ADM's; he has had questions in Germany about so-called mininukes—that I would urge somebody to define for me—but the important point that I would make is that the Germans themselves, including Minister Leber, have always been most interested in obtaining reassurance that the United States stand ready to use tactical nuclear weapons and strategic nuclear weapons in the event of a threat; Minister Leber repeatedly sought those reassurances from me during his visit last year. So I may distinguish between circumstances in the employment of nuclear weapons but there has been no change in the German desire, throughout CDU [Christian Democratic Union] or SPD [Social Democratic Party of Germany] dominated governments, for assurance that nuclear weapons will be used in defense of Germany under those circumstances.

AGREEMENT WITH GERMANY REGARDING SHELLS

We have agreements with regard to the shells. We do not have agreements with regard to the ADM's, Mr. Chairman.

Senator SYMINGTON. Is the agreement on shells signed? It wasn't signed the last time I inquired.

Secretary SCHLESINGER. It is signed, according to my staff.

Senator SYMINGTON. I am talking about the newest versions.

Secretary SCHLESINGER. The newest versions are the ones we have had for 12 to 18 years.

[Additional classified information was subsequently supplied and is in the committee's files.]

Senator SYMINGTON. I must go vote. Chairman Muskie is going to continue. I will be back.

Senator CASE. I have to leave, too.

Senator MUSKIE. We are double-teaming you.

Senator CASE. I have more questions, but it would take too long now because then I will miss this very important vote. I would like to ask him if they can be answered for the record.

Thank you very much. Thank you, Mr. Chairman.

[The information referred to follows:]

QUESTIONS SUBMITTED BY SENATOR CASE AND ANSWERS FROM SECRETARY SCHLESINGER

Question 1. What is your assessment of the current status of the force reduction talks with the Warsaw Pact? What might be the scope of an initial agreement? Would it apply to US and USSR forces only? If so, do you anticipate measures affecting Western European forces in subsequent agreements?

Answer: The MBFR negotiations with the Warsaw Pact on the reduction of forces in Central Europe are proceeding in a serious, orderly way. During the opening session last fall, both sides advanced specific proposals and began their

development. Both sides have been exploring the ramifications of these proposals, and the talks have been dealing with real substance. To date the negotiations have developed in a reasonably satisfactory way.

According to the Western proposal which the US was instrumental in shaping, a first-phase reduction agreement would result in only US and Soviet force reductions. West European forces would be included in second-phase reductions.

We are not ready to make a hard and fast prediction with respect to an initial agreement, but we are negotiating for a US/Soviet reduction of ground forces in the first instance which would lead to a second phase resulting in a common ceiling on Warsaw Pact and NATO forces in the area of reductions.

Question 2. In your prepared statement you say, "I believe that the European Allies are aware of the implications of nuclear parity, and are now more interested in a stalwart conventional capability than they have been since the inception of NATO in 1949." Have the Europeans taken any specific significant steps recently to improve their own conventional capability? If so, what are these steps?

Answer: Significant steps taken by European countries of the EuroGroup (Belgium, Denmark, Germany, Greece, Italy, Luxembourg, Netherlands, Norway, Turkey, United Kingdom) to improve their own conventional capability include the introduction of the following modern equipment into their forces in 1973:

<i>Armor/Antiarmor Capability</i>		<i>Amount</i>
Main battle tanks.....		387
Other armored vehicles.....		1,610
Antiarmor weapons, including missile launchers.....		205

<i>Air Capability</i>		
Modern combat and maritime patrol aircraft.....		115
Heavy tactical transport aircraft.....		18
Land based helicopters.....		125
Antiaircraft guided missiles.....		1,936
Antiaircraft guns.....		930

<i>Naval Capability</i>		
Destroyers/escorts		3
Submarines (including 2 nuclear-powered).....		11
Minelayers/sweepers/hangars		4
Patrol boats.....		6
Vessels for amphibious operations.....		7
Maritime helicopters.....		28

In addition, these same EuroGroup countries have programmed the introduction of the following new equipment into their forces in 1974:

<i>Armor/Antiarmor Capability</i>		<i>Amount</i>
Main battle tanks.....		474
Other armored vehicles.....		1,074
Antiarmor weapons.....		199

<i>Air Capability</i>		
Modern combat and maritime patrol aircraft.....		195
Land based helicopters.....		140
Antiaircraft guided missiles.....		820
Antiaircraft guns.....		853

<i>Naval Capability</i>		
Destroyers/escorts		5
Submarines (including 1 nuclear powered).....		15
Fast patrol boats.....		10
Maritime helicopters.....		33

Question 3. On page 31 of the published transcript of your March 4 appearance before the Committee, you argue that the burden is on the Europeans to make a major contribution to the conventional capability of NATO. You suggest that we should put them to the test to determine whether they are "going to be serious" about conventional capability. What steps is the executive branch taking to test European resolve?

Answer : The areas of challenge to the Europeans in the development of an improved conventional capability in NATO, in which the United States is calling on Europe to make a major contribution, including the following :

a. Basic force improvements in their own forces, such as increased density of anti-tank weapons in units, sheltering of all tactical aircraft, acquisition of adequate war reserve stocks, improved capabilities in electronic warfare, mobile air defense for field forces, and stockage of modern sophisticated air munitions.

b. Arrangements by European nations to facilitate the reception and operation of external reinforcement forces in event of an emergency. This includes actions to facilitate the reception and subsequent operations of US air and ground reinforcements for Europe.

c. Arrangements to permit NATO forces in Europe to work together better, such as agreement on improved command arrangements, common funding of improved communication and command and control facilities, and improvement in interoperability and cross-servicing.

d. Assumption by European countries of certain logistic and support functions normally carried out by US forces.

e. Standardization of both concepts and equipment, in an effort to reduce loss of effectiveness in NATO defense as a whole as a result of waste in the development and support of several weapons systems responding to the same operational need.

Question 4. What progress has been made to date in attempts to bring about a greater sharing of costs among the NATO allies?

Answer : There are many ways of calculating allied contribution to the Common Defense. For example, the European Allies, including France, increased their defense expenditures by 38% from 1970 to 1973—almost half of this in real terms, after allowing for inflation. These increases resulted in substantial force improvements.

More recently, the Congress passed the Jackson-Nunn Amendment to the FY 74 DoD Appropriation Authorization Act which requires the Allies to offset US NATO-related Defense Balance of Payments expenditures in NATO Europe in FY 74. If the Allies fail to achieve that objective, the President is required to reduce US troops in Europe by a percentage equal to the percentage of BOP expenditures not offset. The Allies are making credible efforts to satisfy that requirement.

On April 25, 1974, the US and the Federal Republic of Germany signed a new two year Offset Agreement for FY 74-75 totaling approximately \$2.22 billion. The Agreement commits the FRG to purchase equipment in the U.S., improve US troop facilities in Germany, assume the cost of certain real estate taxes and airport fees, purchase low interest US securities and uranium enrichment services, and invest in several R&D projects.

The other European NATO Allies are reviewing ways of offsetting US FY 74 defense BOP expenditures not covered by the US-FRG bilateral agreement, will satisfy the requirements of Jackson-Nunn, as well as substantially offset the additional budgetary cost of stationing US troops in NATO Europe.

RELATIONSHIP OF NEW SOVIET WEAPONS POSTURE TO SALT

Senator MUSKIE. Thank you very much, Senator Case.

It is very frustrating to have to interrupt testimony, and we thought we would try to work out a two-platoon arrangement here, not to wear you down but to save your time and ours.

The question I would like to return to again is the relationship of this new Soviet weapons posture to SALT. As a Yankee with Yankee traditions, I view negotiations as representing possibilities of meaningful trades. SALT doesn't mean anything unless it is going to produce some meaningful trades—and by that I mean reductions on both sides of capabilities which we both regard as important to our respective strategic policies. If we are giving away nothing, the thing isn't worth anything.

Do we have something the Soviets would live to see us give up, something that is meaningful to us and would be meaningful to them? What is it that they have that we would like to see them give up?

Secretary SCHLESINGER. I think that the fundamental point of concern for the Soviet Union is the recognition that the United States would not tolerate the achievement of unilateral advantages in the strategic area by the Soviet Union, and would be prepared to match them. In order to head off such American movement, which I submit public opinion would support and even demand, the Soviets have every incentive not to proceed with the deployment of the new systems to such an extent that they would upset the strategic balance, which is an option that is open to them under the interim agreement.

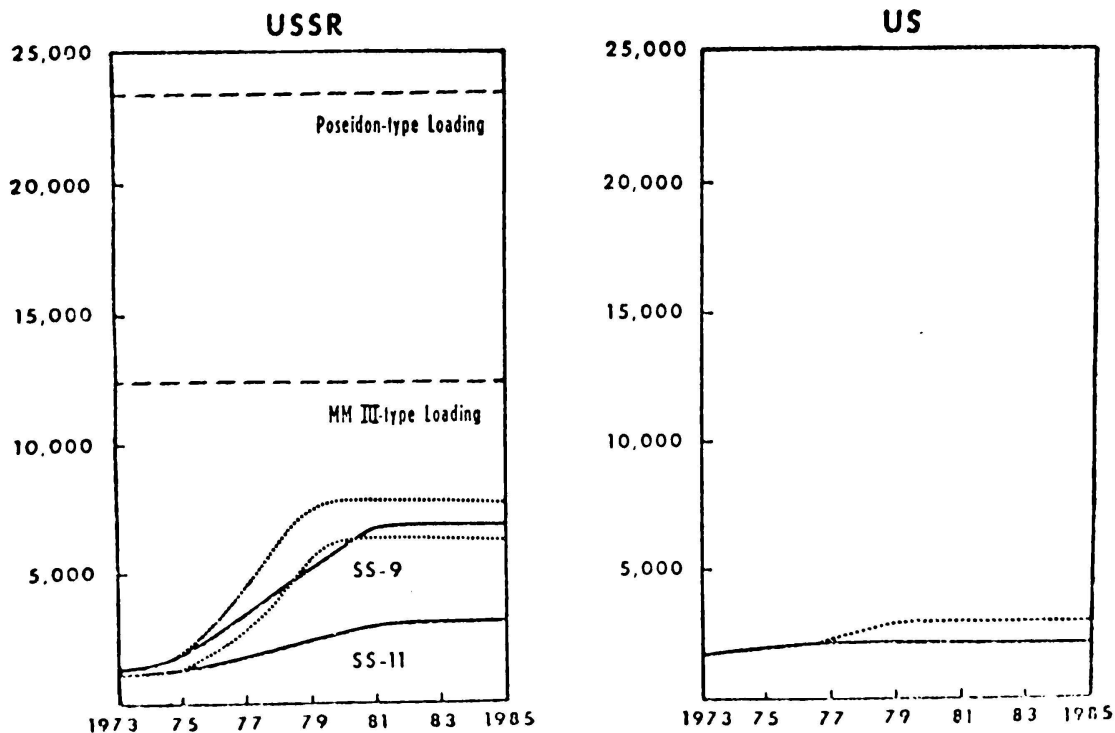
Now, beyond that general appraisal of what the American society and what the evaluation of American military posture might be, they have specific objectives. They would like, I believe, to head off the development of the Trident; they would like to head off the development of the B-1; they would like to bring to an end our MIRVing programs, and a whole set of other programs which are already built into the 5-year programs of the Department of Defense.

Senator MUSKIE. What have they got that we would like most to head off?

Secretary SCHLESINGER. What they have with the new technologies that they are acquiring, Mr. Chairman, is the potentiality for a massive increase in the number and accuracy of relatively high yield warheads. We are concerned about numbers which were temporarily equal because of the advantages of U.S. technology, advantages that are now relatively waning, and particularly about throw weight. To the extent that the Soviets have six times as much throw weight, then they have options for the development of RV's which could upset the strategic balance. We would like to head that off.

[Chart follows:]

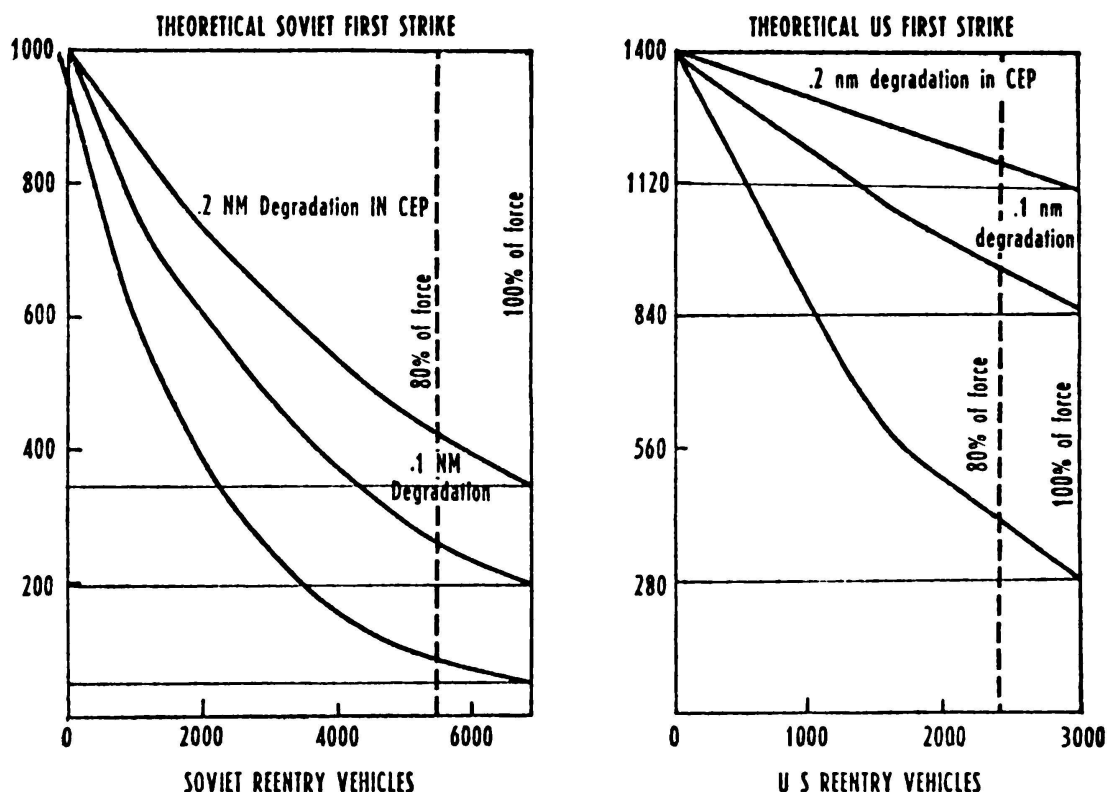
POTENTIAL SOVIET AND US ICBM MIRVs



On this chart I have indicated that with the throw weights available to the Soviets at the time of the May 1972 agreement, they could have as many as 23,000 Poseidon type warheads on board their ICBM's or 13,000 Minuteman type warheads. I use this just as benchmarks. I am not suggesting they would do this, but this is a benchmark to help understand the problem. We believe that the Soviets are more likely to produce about 7,000 or 8,000 RV's in the megaton range.

[Chart follows:]

HYPOTHETICAL RECIPROCAL COUNTERSILo CAPABILITIES: SOVIET UNION & US ICBMs



Now, as we understand, accuracy to some extent compensates for yield. But with this kind of force structure, the Soviets would be in a position to have much higher confidence in their counterforce capability. As I indicated earlier, any degradation in operational accuracies will deal much more harshly when the weapons are small yield than when they are large yields. As this chart indicates, just in a hypothetical ICBM exchange, the fall-off in counterforce capability under those circumstances for the Soviets with, say, a one nautical mile degradation, would be far less than the fall-off for the United States.

I share your judgment, Mr. Chairman, about the ambiguities involved in counterforce capabilities. But I submit that the United States should not be in a position in which it is asymmetrically behind in terms of counterforce capabilities, leaving to the Soviet an option that they may think they can exploit politically or militarily, but which would be denied to the President of the United States.

MISSILE THROW WEIGHTS

Senator MUSKIE. Do you think it was a mistake that we did not go for the bigger bomb?

Secretary SCHLESINGER. In the past it has been my judgment that there were advantages in higher throw weight missiles. I think that there were advantages also in the lower throw weight missiles. I would like to have the Soviets emulate us. If they were willing to deploy the SS-16, for example, which is about Minuteman size, that could lead to a balance in terms of numbers and throw weight that would enhance the security of both sides as opposed to augmenting the throw weights at particular points which tend to be detrimental to the stability for both sides.

Senator MUSKIE. I don't know that you answered the question.

Secretary SCHLESINGER. Well, I tried to point out that in the past I have felt that there would have been advantages for the United States to have higher throw weight missiles. We are in a position now in which our throw weights are relatively low, in relation to existing as well as potential Soviet throw weights. I am reluctant to be in such a position. On the other hand, to the extent that it provides an incentive to the Soviets not to exploit this massive throw weight, I think it could be useful.

POSSIBLE SOVIET USE OF COUNTERFORCE STRATEGY

Senator MUSKIE. Could the Soviets, with their greater throw weight, be able to adapt your proposed counterforce strategy to their needs?

Secretary SCHLESINGER. This has been suggested in the Foreign Policy Report for several years, Mr. Chairman. This kind of strategy will be open to the Soviets as they improve the quality of their missile forces.

Senator MUSKIE. Do you see it in the cards for them in terms of their present thinking and approach?

Secretary SCHLESINGER. I think that this is not reflected in present Soviet doctrine, but we do not know enough about their underlying thinking. In the past the Soviets have not had that option in a physical sense and, therefore, they have not thought about it in a doctrinal sense. As they come to possess the option in a physical sense, they may begin to examine it in a doctrinal sense.

Senator MUSKIE. If they were to move in that direction—in other words, adopt the very strategy for themselves that you are suggesting we adopt—how would we read it? Would we read it as a move toward a first strike capability? Or would we read it in the sense that you think they would read our strategy?

Secretary SCHLESINGER. We would believe that they would be adjusting their doctrine to their new capability. As I have emphasized before in closed session—and I think it would be advisable to reemphasize it in this public session—because of the operational accuracy which nobody knows, and the real hardness of silos which nobody knows with any degree of confidence, neither side can ever aspire to have a high confidence counterforce capability against even ICBM silos, and that leaves out the other components of the force structure.

In any event, both sides, under any conceivable conditions within the present state of knowledge about physics will be able to retain a city-busting capability. There is no threat to that. There is no way that you can put together numbers that would wipe that out.

Now, either side might choose, if it were a risk taker, to have exchanges that did not deprive the opponent of his city-busting capability. But the busting up of cities takes a relatively small proportion of the forces on both sides.

I should point out too, Mr. Chairman, there is a distinction that should be drawn between hard-target kill and a disarming first strike. Both sides, and notably the Soviet side, have hard-target kill capability even at the present time. The Soviets have about 288 SS-9's, which, with a single RV aboard, has a yield in the several tens of megatons, and which is a hard-target killer.

The SS-9 force with MRV's on it is not a Minuteman killer at the present time, but the missile has the capability of killing hard targets.

Similarly, the Titan has a limited hard-target kill capability, more limited than the SS-9 force. For the selective strikes one may need to have hard-target kill, but in no way can one acquire an across-the-board hard-target kill that would begin remotely to approach a disarming first strike.

SOVIET IMPRESSION OF U.S. FORCE STRUCTURE

Senator MUSKIE. What would the Soviets look for in our posture, in addition to your proposed counterforce strategy, before they would be concerned that we were moving toward a first strike capability?

Secretary SCHLESINGER. We have emphasized that this is not a counterforce strategy. It is a strategy that talks about selectivity and flexibility.

Now, I think, the Soviet impression of this, as they look at our force structure, must be based upon their perceptions of the limitations in counterforce that I laid out in that hypothetical exchange early on, and the fact that nobody knows silo hardness or real world accuracies. Therefore, the United States cannot acquire even a medium confidence counterforce capability with the present levels of throw weights that are available to us.

I think that the Soviets would begin to be concerned if we substantially enhanced the throw weight of our missile forces and moved to much higher yield weapons, more akin to the weapons they are introducing into their force structure. Then they could begin to perceive the possibility of a disarming first strike. But at the present time we do not have that. We are engaging, or we have requested funds, for a higher throw weight ICBM, but we would not plan to deploy such a throw weight if the Soviets also will refrain from the deployment of a massive amount of throw weight. But if they proceed with the greater accuracies, the high beta RV's, the onboard computers, new MIRV's and the accuracy programs that we have, we must be prepared to match them even in counterforce capability so that they do not see that they have unilateral advantages.

DETERRENCE OTHER THAN FOR ALL-OUT WAR

Senator MUSKIE. Could I open just one other line of questioning, Mr. Chairman?

Senator SYMINGTON. Certainly.

Senator MUSKIE. With respect to this proposed strategy, I am having as much trouble putting a label on it as you have dealing with two chairmen, I might say. I didn't mean to misapply a label when I referred to it as counterforce strategy because you have argued over and over again it isn't that.

Secretary SCHLESINGER. It isn't.

Senator MUSKIE. I gather from so much of what you have said that you don't see all-out nuclear war as even a remote possibility at the present time or in the near term.

Secretary SCHLESINGER. No, sir, I do not. I would think that with a continued interest in the maintenance of our conventional forces and the lag that the Soviets still have in terms of the potentiality of their strategic forces, they will be inclined to wait.

Senator MUSKIE. So when you say this proposed strategy is designed to add to our deterrent, you are not really thinking in terms of deterring all-out war. Rather, you are thinking of deterring something else, something less than that. What is the something less that you are seeking to deter?

Secretary SCHLESINGER. As I indicated before, we are pledged and have been pledged for many years to the use of strategic nuclear forces of the United States in the event of massive aggression against Western Europe. As I indicated earlier, for a variety of reasons associated with the U.S. doctrine or what was perceived to be U.S. doctrine, there have been those that have taken the credibility of the linkage between U.S. strategic forces and the security of Western Europe to be waning. Some would have argued that it had disappeared. I think that the new doctrine recreates that linkage in the eyes of all parties around the world.

Senator MUSKIE. Would you say then that it is principally European defense strategy?

Secretary SCHLESINGER. I would put it this way, Mr. Chairman: The United States has taken on a number of responsibilities in which we have explicitly and sometimes implicitly pledged U.S. strategic forces for purposes of extended deterrence: that is deterrence of nuclear attacks other than against the U.S. These pledges were made explicitly in the NATO agreement. I do not recall whether it is implicit or explicit in our agreement with the Japanese. It is clearly explicit in the case of the Nonproliferation Treaty. What we have said in the Nonproliferation Treaty and in our efforts to persuade our allies in Europe not to acquire major strategic nuclear capabilities is that the U.S. forces are available so that there is no need for nations to scramble toward the acquisition of additional capabilities.

This is, incidentally, an arms control aspect that I should underscore. It counterbalances to some extent some of the concerns that you have expressed about the continued belief in the paramountcy of

the strategic forces of the United States and the Soviet Union and serves as a disincentive to the proliferation of nuclear weapons. Such a proliferation would have a major destabilizing effect that we all seek to avoid. But as a general proposition, the United States has made such commitments.

Senator MUSKIE. So the principle stimulus for developing this strategy arises out of the European problem.

Secretary SCHLESINGER. No, sir, I think it is much broader than Europe. It is external at this time to the United States because the Soviet capabilities have not come along as rapidly as was expected some years ago.

The timing of this relates less to the United States than to external obligations, but in the longer run it relates to the United States as well. We might have postponed this public discussion if we were thinking exclusively in terms of the U.S. Zone of Interior—USZI—because the Soviets would not, until they had deployed these improved forces, contemplate such an attack upon the USZI. It is the external obligations that have given force to the timing as well as the need, as both chairmen indicated at the outset, to lay before the American public as well as the world public the fundamental calculus on which we base our strategies.

Senator MUSKIE. There is one other fundamental question that I want to raise with respect to SALT. There are a lot of other questions but I have to be deferential to my cochairman.

Let me just ask you this question: I would guess that negotiating strategies aimed at particular weapons at this point—limiting or prohibiting particular weapons—may be the most difficult line to pursue. There would seem to me to be three more general lines that might be productive: (1) Limitation of numbers of missiles overall; (2) limitation of throw weight overall; (3) limiting numbers of tests on an annual basis in order to reduce the possibilities for weapons improvement.

Is this analysis founded in reality at all?

Secretary SCHLESINGER. I think that it touches the major points.

Let me deal with the first issue that you raised with regard to specific weapon systems. I think that it is very hard for us to control qualitative improvements in certain categories which cannot be monitored. On the other hand, I think there is the possibility of limiting by treaty the deployments of certain specific weapon systems that can be carefully monitored—their deployments, not their qualitative improvement. For example, the so-called modern, large ballistic missile has a specific signature that we can monitor. So there is hope, even in the area of specific weapon systems, although I do not wish to exaggerate it. I take it the three points you made deal with a larger area.

Senator MUSKIE. Are we following any one of the three?

Secretary SCHLESINGER. Yes, indeed. As a matter of fact, we are prepared to pursue all three.

Senator SYMINGTON. Mr. Secretary, I have several questions and will stay, with Senator Muskie's approval. We know it is late for you and will file some questions for the record. We may ask you for another hearing on this question. It is a fundamental matter.

Secretary SCHLESINGER. Yes, sir.

Senator SYMINGTON. We are facing up to an unprecedentedal peacetime budget, as you know.

Secretary SCHLESINGER. Yes, sir.

Senator MUSKIE. Thank you very much, Mr. Secretary, and I suspect we will have other sessions.

Secretary SCHLESINGER. Yes, sir, I have some of the data that Senator Symington requested with regard to the deployment in Europe that would have to be given in a classified session.

Senator SYMINGTON. Mr. Secretary, toward the close of our last series of questions you acknowledged it might make sense to reduce our European stockpile, but noted there would be "diplomatic problems."

Professor Hoffmann, before this committee in an earlier hearing, suggested that we may have made our initial commitments of nuclear weapons in Europe for self-serving reasons; for example, to protect Western Europe from its own self-doubt and to provide ourselves with controls over our friends' policies—I am quoting him here, "We are, to a large extent stuck—insofar as the costs of change could far outweigh those of persisting." Would you agree that even if it should be concluded we could safely and should, wisely, reduce our NATO nuclear inventory, that such reductions would inevitably undermine European confidence? Are we, as Professor Hoffmann suggested, "stuck" with 7,000 warheads in Europe?

Secretary SCHLESINGER. I don't believe so, Mr. Chairman. I believe that if it were decided that a smaller number of weapons would be suitable, we would have to pursue this matter in consultation with our allies.

There is the need for the Allies to feel that they can rely on the United States. If they have that feeling then they can deal with the force structure issues in a more open-minded way.

I would respectfully disagree with the observations of Professor Hoffmann with regard to the self-serving reasons for introducing those weapons. As you will recall, Secretary McNamara was no great believer in the tactical nuclear option. He stressed the need to develop conventional forces and he stressed the nuclear firebreak in the same way that Mr. Enthoven did in his testimony here.

I think Secretary McNamara felt the political pressure from Europe to make that large a deployment and he entered into it with some degree of reluctance, rather than for the motives that Professor Hoffmann states.

Senator SYMINGTON. Thank you.

Dr. Enthoven stated that during the 1950's the United States "built a larger production base for fissionable materials and the JCS regularly projected requirements that would use it all up." In response to questions from the committee, Professor Enthoven implied that JCS requirements were based on production capacity rather than on calculations of actual military requirements. Is this, in fact, how the European stockpile grew?

Secretary SCHLESINGER. As an old AEC, man I think there is some measure of truth in that, but it is not an across-the-board kind of thing. I think that the production, for example, of the 8-inch shell

reflected the availability of U-235 and the requirements were adjusted to that availability.

As I have indicated before, I believe at the confirmation hearings, we have a store of valuable material in those 8-inch shells that sooner or later we may want for our nuclear industry.

Senator SYMINGTON. Is it correct, as Dr. Enthoven told this committee, that studies and war games conducted by the Pentagon in the 1960's showed that:

Even under the most favorable assumptions about restraint and limitations in yields and targets, between 2 and 20 million Europeans would be killed in a limited tactical nuclear war * * * and a high risk of 100 million dead if the war escalated to attacks on cities.

Secretary SCHLESINGER. I would have to check on that, Mr. Chairman.

Senator SYMINGTON. Would you do that, Mr. Secretary.

Secretary SCHLESINGER. But I would like to emphasize that the destructiveness of tactical nuclear war in an unconstrained manner has been a source of historic concern to me personally, as well as to the Department of Defense generally.

[The information referred to is classified and is in the committee's files.]

Senator SYMINGTON. I ask unanimous consent that we put any such answers and some further questions we have in the record, to be answered at your earliest convenience; we would appreciate that.

Secretary SCHLESINGER. Yes, sir.

Senator SYMINGTON. May I express my own and the committee's appreciation that Admiral Moorer is with you today. He knows of my respect and confidence in him.

Thank you too, Mr. Secretary.

[Additional questions and answers follow:]

QUESTIONS SUBMITTED BY SENATOR SYMINGTON AND ANSWERS FROM SECRETARY SCHLESINGER

Question 1. How many tactical nuclear weapons do we have in Europe assigned to NATO missions? How many are there in the European area, including the fleet and those assigned to SAC?

Answer. There are approximately 7,000 U.S. nuclear weapons in Europe, including naval weapons. All of these U.S. weapons are available for NATO missions; none is a SAC weapon.

Question 2. General Goodpaster also said last year that "much of our current inventory (in Europe) consists of weapons with unnecessarily high yields." What is the aggregate yield of this stockpile? What is the average yield? What are the largest and smallest yields? (Some unclassified studies place the *average* yield between 4 and 14 KT)

Answer. This information is classified in detail. The weapons range from sub-kiloton to megaton yields with the average less than 4 KT. The specific values are on file with the Joint Committee on Atomic Energy.

Question 3. How has this number of weapons grown and fluctuated since the 1950's?

Answer. The number rose from zero in the mid-1950's to slightly above 7,000 in the early 1960's and has remained relatively constant since then. The mix of weapons within that total has changed to provide for modernization.

Question 4. Have we ever withdrawn any major nuclear weapon system from Europe without replacing it with another? You speak of "moderately upgrading" our stockpile, has it ever been significantly reduced since it began to grow?

Answer. Yes, we withdrew without replacement the Mace, Matador, Lacrosse, Thor, Jupiter, Bullpup, Falcon, and the Davy Crockett battlefield weapons. Our

stockpile has been reduced, in overall totals, from over 7,000 to less than 7,000 since the mid-60's.

Question 5. How does the stockpile break down by number or percentages among the above categories of systems? What percentage of these weapons can be used for *both* offensive and defensive purposes and what percentage are for purely defensive purposes?

Answer. Percentages of weapons in their roles are classified; actual numbers assigned to each role are available from the Joint Committee on Atomic Energy.

Question 6. How many forward based nuclear capable aircraft—U.S. and allied—are there? How many of these planes are capable of delivering nuclear weapons on Soviet territory?

Answer. There are roughly 1,000 nuclear capable aircraft, U.S. and allied, in the European area, and about one half of these can deliver nuclear weapons on Soviet territory. This compares with over 2,000 Soviet aircraft capable of delivering weapons on NATO territory.

Question 7. How many U.S. and allied aircraft are there on QRA (Quick Reaction Alert)—that is loaded with nuclear weapons and ready to be launched immediately? In how many different countries are such aircraft located?

Answer. The specific numbers and locations are classified and are available through the Joint Committee on Atomic Energy.

Question 8. With what European countries do we have "Atomic Energy: Cooperation for Mutual Defense Purposes" agreements?

Answer. Agreements with other countries concerning cooperation on nuclear defense matters are classified by both host country and U.S. governments. The Joint Committee on Atomic Energy has been informed of all countries with which we have such agreements and has approved such agreements as required by the Atomic Energy Act of 1954 as amended.

Question 9. How many nuclear weapons system "Programs of Cooperation" do we currently have in force? With what countries?

Answer. All information pertaining to Programs of Cooperation is classified and is provided to the Joint Committee on Atomic Energy on a continuing basis.

Question 10. How many service-to-service nuclear stockpile agreements do we have in force? With what countries?

Answer. Agreements with other countries concerning nuclear stockpile agreements are classified by host countries and the U.S. Government. The Congressional Joint Committee on Atomic Energy has been informed of all countries with which we have such agreements and has approved such agreements as required by the Atomic Energy Act of 1954, as amended.

Question 11. Approximately how many allied personnel have been trained in the operation of nuclear weapons systems for which the U.S. has agreed to provide the warheads?

Answer. Since in many areas these involve dual-capable delivery systems and operational techniques are directly transferrable, we are unable to estimate the approximate number of trained allied personnel. Our European allies have relatively the same training procedures and turnover of personnel as do U.S. forces.

Question 12. Would you assume that the Soviet Union knows the location of our more than 100 nuclear weapons storage sites in Europe?

Answer. The Soviets probably know the locations of most of our peacetime undispersed storage sites, but they probably do not know which sites contain weapons nor how many weapons are located at a given site.

Question 13. Does the Soviet Union know to which allied countries and forces we have agreed to provide nuclear warheads?

Answer. We have no way of knowing the extent of their knowledge.

Question 14. What categories or levels of allied civilian and military officials are informed about arrangements for sharing U.S. tactical nuclear weapons? What is your estimate of the approximate number of informed officials both in and out of office in each country? 25? 50? 100?

Answer. Properly cleared allied civilian and military authorities (to include heads of state) with a need-to-know are informed of the arrangements concerning their countries. We have no estimate of approximate numbers of officials.

Question 15. How are decisions made within the U.S. Government regarding what nuclear weapons information may be made public? What agencies or organizations provide the recommendations on which such guidelines are based?

Answer. The decisions are based on the Atomic Energy Act of 1954, as amended, that specifies the control of information. The guidelines under the Act are the responsibility of the AEC for Restricted Data and the AEC and DoD for Formerly Restricted Data.

Question 16. Dr. Halperin told this Committee that the continued secrecy on which the Executive Branch insists in connection with stationing of nuclear weapons abroad was originally based in large part on the fear of U.S. naval officers that our ship movements would be inhibited if the presence of nuclear weapons on *naval ships* were to be confirmed. How did this become the basis for the initial decision not to confirm or deny the presence of nuclear weapons stored on *land* in foreign countries? Do you know whether the question of maintaining secrecy on this point has been reviewed in the Executive Branch? Has it been reviewed since you have been Secretary of Defense?

Answer. The "neither confirm nor deny" policy is based on the Atomic Energy Act of 1954 and the guidelines contained therein that specific numbers, yields, and locations of nuclear weapons relates to the military utilization of nuclear weapons, that is, Formerly Restricted Data. This policy has been reviewed in the past and is currently being reexamined within DoD. Both the DoD and the AEC have a responsibility.

Question 17. Previous witnesses have stated that the European countries which have accepted U.S. nuclear weapons "do not have any substantial public pressure against their storage on their territory." Does it follow then that it is *not* because of our concern for European political sensitivities that we insist on such secrecy? And if that is so, then what is the reason for our insisting on this policy of secrecy?

Answer. Current DoD information indicates that NATO governments are most sensitive to public disclosure on matters related to storage of nuclear weapons in their territories.

Question 18. Would you describe why the Nuclear Planning Group was established, how its members are selected and what it does? Is the Group now studying the earlier use of tactical nuclear weapons in a NATO conflict?

✓ Answer. The NATO Nuclear Planning Group was established at the suggestion of former Secretary of Defense McNamara as a means of increasing Allied participation in Alliance nuclear affairs. The goals of the NPG are to provide an intimate and candid forum for discussions, by Defense Ministers, on nuclear policy issues and to provide for continuing Allied dialogue on the complexities and imponderables of nuclear planning policy. Membership is open to any NATO country that wishes to join the NPG. There are four permanent members at present—U.S., U.K., Germany and Italy—and eight other countries which occupy four other seats on a rotational basis. The NPG Ministers have commissioned numerous studies, one of which was a study investigating, among other things, the issues involved in the early use of tactical nuclear weapons.

Question 19. Does the Soviet Union have tactical nuclear weapons deployed in Eastern Europe? How many?

Answer. The answer is classified and is in the Committee's files.

Question 20. What categories of Soviet nuclear weapons systems does this deployment include?

Answer. The answer is classified and is in the Committee's files.

Question 21. What is the aggregate yield of the Soviet stockpile? Are their tactical nuclear weapons bigger and "dirtier" than ours? Are Warsaw Pact forces other than Soviet, trained and equipped to use tactical nuclear weapons?

Answer. The answer is classified and is in the Committee's files.

Question 22. What has it cost the United States to accumulate the tactical nuclear weapons presently stockpiled in Europe? What has been the cost of producing the warheads?

Answer. The United States has spent about 2 billion dollars over the past 20 years for producing the nuclear weapons presently deployed in Europe. More than one half of this cost was for recoverable special nuclear materials, with the balance being incurred for fabrication costs.

Question 23. The cost of the 155 mm. nuclear shells requested by the Department of Defense last year was \$452,000 each compared to a cost of \$191 for conventional shells for the same gun. Is a half-million dollars per warhead a reliable rule of thumb for estimating the cost of tactical nuclear weapons?

Answer. No. The cost of the warheads varies with the design and numbers built. Nuclear materials, although relatively costly initially, are not expended and thus recovered and reused when the weapons are retired.

Question 24. Professor Enthoven pointed out to the Committee that the military services contend the costs of tactical nuclear weapons are small because the costs of the manpower weapons systems, in the case of dual capable systems, are attributable to the conventional capability. He points out that this is an illusion because first, the cost of the warheads "are buried in the AEC" budget, and second, because nuclear weapons storage sites have to be guarded and the weapons maintained. How many personnel are engaged in guarding and maintaining these weapons? Is an estimate of 30,000 too high?

Answer. The cost of the warheads is not "buried" in the AEC budget. This is a matter of close scrutiny by the JCAE and the costs of each warhead are specifically identified for them in the budget process. The total AEC budget for military applications is available in unclassified publications. The number of guards and warhead maintenance people is less than 10,000. The estimate of 30,000 is too high.

Question 25. Would you agree with Professor Enthoven that "if the number (of U.S. guards) is less than five or six per weapon, there should be serious questions raised about the security of the weapons"?

Answer. No. The security of weapons relates to the total protection afforded the warheads, including physical protection measures, number of guards per site, and other factors. Obviously, a site with one weapon or twenty weapons could receive the same protection from the same number of guards, all other factors being equal.

Question 26. Would you tell us the approximate unclassified yields for the warheads of the following kinds of nuclear weapons which the United States has in Europe: (the yields indicated below were derived from a variety of dependable *unclassified* sources, e.g., Institute for Strategic Studies, Jane's, etc.)

Surface to surface missiles:

Honest John—low KT

Sergeant—low KT

Lance—1 to 100 KT

Pershing—60–400 KT

Bombs delivered by theatre aircraft—from .1 KT to over one MT

Artillery shells:

155 mm.—2 KT

8-inch howitzer—1 KT

Answer. The unclassified yields for the requested weapons are as follows:

Missiles:

Honest John—kiloton range, several yields

Sergeant—kiloton range, several yields

Lance—subkiloton and kiloton; several yields

Pershing—kiloton range, several yields

Bombs—several types and yields from subkiloton to megaton

Artillery shells:

155 mm.—subkiloton

8-inch—subkiloton to kiloton

Question 27. As you know, nuclear weapons have a variety of effects including immediate radiation, fallout and blast effects. According to figures released by the AEC in its publication, *The Effects of Nuclear Weapons*, in February, 1964, a blast of four pounds psi (per square inch) can wreck a wood frame house and an over-pressure of five pounds psi can flatten an unreinforced brick house. Are these figures still considered valid?

Answer. *The Effects of Nuclear Weapons* is a useful, unclassified guide. Its values are considered correct. The formulas in the referenced book are correct for the conditions stated.

Question 28. It is said that our tactical nuclear weapons in Europe have an average yield of over 10 KT. On the basis of the figures and pocket slide rule computer provided by the AEC in *The Effects of Nuclear Weapons*, our staff has calculated that a 10 KT weapon would cause a 4 psi blast from .7 to 1.1 miles, depending upon whether it is exploded at the surface or at a height that optimizes blast. Does this calculation appear accurate to you?

Answer. The calculation appears accurate. The statement of average yield is not necessarily accurate.

Question 29. Some unclassified studies have estimated the average yield of Soviet tactical nuclear weapons at around twenty kilotons. Does the greater yield of Soviet weapons (compared with U.S. weapons) diminish the likelihood of controlling collateral damage in a selective tactical nuclear exchange?

Answer. We do not know with accuracy the yields of Soviet weapons. Obviously, control of collateral damage takes concern by both sides, and a willingness on both sides to terminate the exchange before a great number of weapons are used.

Question 30. Dr. Carl Walske has testified to the practicality of tactical nuclear weapons being used "between villages" in Europe. Given your knowledge of European geography, do you believe that weapons of the yields which we now have in Europe, could be used without catastrophic damage to civilians and civilian facilities?

Answer. Yes.

Question 31. Is it correct, as Professor Enthoven has told this Committee that studies and war games conducted by the Pentagon in the 1960's showed that "even under the most favorable assumptions about restraint and limitations in yields and targets, between 2 and 20 million Europeans would be killed in a limited tactical nuclear war . . . and a high risk of 100 million dead if the war escalated to attacks on cities." Would you provide the Committee with copies or summaries of those studies. What do such games indicate with regard to anticipated casualties, numbers of nuclear weapons employed and how early in the conflict tactical nuclear weapons were employed?

Answer. There have been, and continue to be, studies and war games related to our nuclear weapons and the consequences of their possible employment. However, since these studies and war games are scenario oriented, use in-being forces, and often reflect general war plans, they cannot be released in unclassified form.

Question 32. Virtually the only specific casualty estimates from NATO war games ever made public were those quoted by the present German Defense Minister (and former Minister of Finance) Helmut Schmidt in his book, *Defense or Retaliation* published in 1962. He wrote:

"NATO's exercise 'Carte Blanche' in June 1955 saw the dropping of 335 nuclear bombs in the space of less than 3 days, of which 268 fell on German soil: assumed casualties in the Federal Republic were put at 1-5 to 1-7 million dead and 3-5 million wounded. A few days later in the Bundestag, discussing the outcome of this exercise, Deputy Blachstein pertinently outlined the danger 'that the use of tactical nuclear weapons might develop into a war of annihilation that would wipe out the greater part of those living today.'"

Elsewhere in the same book Minister Schmidt described another NATO nuclear exercise:

"In the NATO autumn manoeuvres held in Schleswig-Holstein in 1960 the total number of deaths among the civil population within 48 hours of the initiation of tactical nuclear warfare was put at between 300,000 and 400,000."

Why have the results of more such studies not been made known in Europe and the United States?

Answer. Most NATO nuclear exercise reports, and studies relating to them, are classified. This is appropriate, in that many of the exercises are used to evaluate training, rehearse tactical procedures or test alternatives. The evaluations often apply data classified in accordance with the U.S. Atomic Energy Act as amended. It should be noted that the Warsaw Pact does not make known similar exercise reports or studies they develop. Classified U.S. and NATO studies pertaining to NATO nuclear exercises are made available to the Joint Committee on Atomic Energy upon request.

Question 33. In his testimony before the Commitments Subcommittee, Professor Enthoven stated that the exaggeration of Warsaw Pact forces and the belief that a conventional defense posture is beyond NATO's means have led to the belief that we must have tactical nuclear forces in Europe in order to make up for our conventional inferiority.

This view appears to be borne out by a recent Pentagon study described by Michael Getler in the *Washington Post* on June 6, 1973. More recent Brookings and Rand studies, are said to have reached similar conclusions. It is said that you presented a somewhat similar view to NATO at Brussels last year. Would you comment on these studies and how their conclusions relate to the rationale for maintaining our current stockpile of 7,000 tactical nuclear weapons?

Answer. The NATO deterrent is based on three capabilities—conventional, theatre nuclear, and strategic nuclear. Each of these capabilities is necessary to deter the spectrum of possible hostilities that might be launched by the Warsaw

Pact. They are interrelated, and provide the NATO strategic doctrine of flexible response. Our studies have indeed shown that NATO's conventional capabilities are adequate in a greater range of circumstances than had been thought previously. They do not yet cover the full range of plausible scenarios, and they are marginal in a number of respects, due especially to some critical deficiencies which the alliance is in the process of resolving.

Even if critical deficiencies are filled, there remain important roles for theatre nuclear forces. These include the following:

To deter theater nuclear attacks by the Warsaw Pact;

To contribute to the deterrence of conventional attacks;

To contribute to a combined conventional/nuclear defense in the event of a Pact attack which is significantly worse than those for which we plan conventional forces alone;

To maintain a peacetime balance of nuclear forces in the European theater.

We consider these to be ample grounds for the continued maintenance of substantial theater nuclear capabilities. We have long considered them necessary, even though we had concluded that theater nuclear weapons are not a feasible substitute for conventional forces. This does not mean, however, that the current theater nuclear stockpile is ideal. The Department of Defense constantly examines the size and characteristics of this stockpile for possible changes.

Question 34. In earlier testimony it was pointed out by Mr. Warnke that the "initial deployment of nuclear weapons as part of the NATO defense was almost automatic and undebated. They were, in the prevailing view, better weapons." In what ways do our current plans for utilizing tactical nuclear weapons in Europe differ from the plans which were followed in the 1950's? Are we more or less dependent upon tactical nuclear weapons today than in the 50's?

Answer. The statement that the deployment of nuclear weapons to Europe during the late 50's occurred without any extensive discussion between governments or substantial discussion involving civilian officials in the American Government and that these decisions were, by and large, left to the military is quite incorrect. Secretary of State Dulles and various Secretaries of Defense during the time gave these issues their closest attention. Final decisions were all reviewed by President Eisenhower. Extensive negotiations with each of the countries were undertaken prior to any nuclear weapons being deployed. The principal purpose of the deployment of such weapons was to deter the Warsaw Pact forces from an attack on European NATO, particularly an attack in which the Warsaw Pact might use nuclear weapons itself. All deployments have been similarly approved annually ever since. Our strategy has evolved since that time from massive retaliation to flexible response.

Question 35. Do you believe that tactical nuclear weapons can compensate for a numerical inferiority in military manpower? Is this one of the rationales for the size of our European stockpile?

Answer. There is no substitute for an adequate conventional defense in Europe. Our tactical nuclear weapons compliment the conventional forces and serve to deter both conventional and nuclear aggression, not to substitute for that conventional defense which is essential in keeping the nuclear threshold for use high. NATO is not numerically inferior in military manpower after mobilization.

Question 36. If nuclear war-fighting in Europe is unthinkable and *deterrence* is of primary importance, then it would seem to follow that we should try to convey to the Soviets a high degree of certainty that they would be hit early and hard with tactical nuclear weapons—such as ADM's (atomic demolition munitions). But since the Europeans are extremely reluctant to see tactical nuclear weapons used—especially ADM's—should we not ask ourselves (1) whether such weapons have *any* role other than deterrence and (2) whether we really need 7,000 weapons for deterrence? Wouldn't 1,000 be enough as Dr. Enthoven has suggested?

Answer. To be effective in deterring an attack, we must be perceived as having the will to use tactical nuclear weapons and nuclear weapons must be effective if used in warfighting. The numbers of weapons may be changed as the strategy and the Soviet threat changes; what the appropriate number is today may be different from that value tomorrow. The number and kinds of weapons

must thus be continually examined. We do not consider 1,000 weapons to be adequate today.

Question 37. Dr. Halperin told this Committee that the European view is that "deterrence does not depend on a credible capability to fight a large war, but rather from convincing the Soviet leaders that war with the United States is the inevitable result of an attack on Europe." He added that "the Germans have never seen any direct deterrent value from their own military capability." Would you agree?

Answer. No. A fundamental part of the North Atlantic Treaty is the provision that an armed attack on one Ally shall be considered as an attack on all. Soviet leaders do understand, therefore, that an attack on Europe would inevitably lead to war with *all* members of the Alliance. However, it is not true that our Allies do not see any deterrent value in their warfighting capability. The U.S. provides nuclear forces that must weigh importantly in the view of any aggressor. But the very essence of the Alliance is the strength drawn from each other in a mutual defense pact such as NATO. The Germans specifically recognize the value of their conventional forces in the deterrent calculus. They, along with other Europeans, recognize specific deficiencies in NATO that require remedying. However, the Allies also understand that the NATO countries collectively already provide substantial manpower and combat resources to NATO defense. This, of itself, increases the credibility of deterrence.

Question 38. Professor Hoffmann spoke about the "continuum" of NATO's military posture from conventional forces to U.S. strategic nuclear forces via NATO's tactical nuclear arms and FBS (forward based systems.)

Dr. Halperin made the same point and many others, including Administration officials, have stated that Europeans regard American nuclear weapons in Europe as a bridge between conventional forces and American strategic forces. Would you explain how tactical nuclear weapons provide a link or "bridge" to strategic forces?

Answer. We do not view, as the question might imply, that theater nuclear forces are the logical stepping stone to all-out nuclear war. Rather, we view theater nuclear forces as helping to deter both conventional and nuclear attacks, and at the same time, giving the Alliance appropriate options with which to respond to various levels of aggression without resorting to all-out nuclear war.

Question 39. Why did the United States provide some European forces with dual capable delivery systems and U.S. nuclear warheads for their use? Was the decision a military or a political decision? Was it a wise decision in your opinion?

Answer. The Europeans have for the most part purchased or built dual capable systems themselves to enhance both the conventional defense of Europe and provide a theater nuclear capability for deterrence and warfighting if deterrence fails. The U.S. has supported these systems with nuclear warheads. The U.S. retains custody of the nuclear warheads, however. The decision to support them with nuclear warheads was based on both political and military reasons and was made by the President. We believe these decisions have contributed to deterrence and have thus been wise.

Question 40. Some witnesses have pointed out that the characteristics of QRA (Quick Reaction Alert) aircraft and ADM's tend to force early decisions to initiate their use—characteristics which they believe are dangerous. The Europeans, on the other hand, are said to regard the QRA, in particular, with favor because these systems are regarded as a possible coupling to, or detonator of, American strategic nuclear forces. Thus, is it accurate to say that the same qualities which some American observers regard as "dangerous" from the U.S. point of view, are reassuring to the Europeans?

Answer. European interest in QRA aircraft has stemmed in part from the visibility of these forces. They are obviously present and, in that sense, are less remote than longer range forces, such as submarines, which might view as more closely coupled to U.S. strategic forces. Our European allies participate in QRA, and this is a contribution to deterrence over many years, of which they are justifiably proud. We intend to review both QRA and ADM's, among other aspects of the nuclear posture. The views of our NATO Allies and the reduction of vulnerabilities will be considered in such reviews.

Question 41. Mr. Warnke told the Subcommittee that we have sought "to persuade the Western Europeans that NATO is capable of mounting a conven-

tional defense that would deflect even a large-scale Soviet attack" and that our purpose as stated in the 'overall concept for the defense of the NATO area' (January 16, 1968) is "to avoid the need for early resort to nuclear weapons, except in the event of Soviet use of such weapons." If this is true, why is our defensive strategy built around the early use of ADM's, why are our quick reaction aircraft armed only with nuclear weapons and how does it happen that most NATO war games seem to "go nuclear" within the first few hours?

Answer. Our strategy is built around flexible response, a response appropriate to the threat and the aggression that occurs—should deterrence fail. That strategy is not dependent on any one weapon. ADMs provide only one option.

QRAs are only a small part of the theater air forces available. The remainder are conventionally armed.

Question 42. Previous witnesses have testified that proposals for reducing the number of tactical nuclear weapons in Europe met with intense political resistance in the Pentagon and in Europe. Would you comment?

Answer. Within the Defense Department there may have been particular staff recommendations to reduce nuclear weapons in the past. These were obviously not accepted, for a variety of reasons. We have not proposed such a reduction to our Allies.

If the U.S. were to propose to unilaterally reduce the number of nuclear weapons in Europe without demanding a concomitant response by the Warsaw Pact, Europeans would be justifiably concerned. The U.S. government has obligated itself to consult first with our Allies before advancing any such proposal.

Question 43. Under what circumstances would it be possible for us to reduce the size of the U.S. tactical nuclear stockpile in Europe?

Answer. We could reduce the nuclear warhead stockpile in Europe if the Soviet threat decreased. Unfortunately, the Soviet threat has grown in Europe, both in conventional and nuclear forces.

Question 44. Do you see a relationship between the size of U.S. ground forces in Europe and the size of the U.S. nuclear stockpile in Europe? For example, could ground forces be reduced if the nuclear stockpile were increased, and if the nuclear stockpile were reduced what would be the implications insofar as ground force levels are concerned?

Answer. There is a relationship between U.S. ground forces and U.S. nuclear weapons in Europe—and many other relationships including ones with other NATO forces, the strategy to be employed, the threat being faced. A specific change should consider all of the factors, not just those two.

Question 45. Mr. Warnke has stated that "the strategy of flexible response is inescapably limited" and that "NATO's possession of the capability to fight such a war indefinitely would add little to the alliance's deterrent strategy." Do you believe there is any possibility of a protracted tactical nuclear war in Europe which would require 7,000 nuclear warheads.

Answer. We can't speculate with accuracy on how many warheads would be required in specific European war given the options currently available to Pact forces. The success of our strategy, the ability to limit escalation, the warheads surviving an enemy attack, and the need for on-hand reserves all should be considered, both now and in the future.

Question 46. A previous witness in these hearings, Professor Stanley Hoffmann, stated that the "shakiness of NATO's consultation procedures on the use of the alliance's nuclear weapons" contributes to the intensity of the allies' concern over the "proper" strategy for the use of NATO nuclear weapons and to our allies desire for some control over the nuclear weapons thereunder. Is there an agreed NATO policy on the use of nuclear weapons?

Answer. Through interaction in the NATO Nuclear Planning Group, there are a number of agreed guidelines concerning the employment of nuclear weapons in appropriate circumstances. We believe the consultation procedures are effective.

Question 47. In discussing consultation, on page 7 you state that in time of crisis "NATO countries would be consulting from the earliest stages of any crisis." How do you account for the fact that such consultation does not appear to have occurred at the time of the October 1973 crisis in the Middle East, particularly at the time of the U.S. world-wide alert?

Answer. Circumstances surrounding the Middle East crisis developed with such rapidity that timely consultation was made more difficult. However, as the existence of the international phase of the crisis became apparent to the U.S. Government, NATO was notified and political consultation between NATO government officials followed thereafter. It should be noted that the Middle East crisis did not constitute an immediate military threat to the NATO area.

Question 48. In discussing the Athens Guidelines, on page 6 you state that "special weight be accorded the views of those NATO countries on or from whose territory nuclear weapons would be employed, countries providing the nuclear warheads, or the countries providing or manning nuclear delivery systems." It would appear that the categories that you mention include virtually all NATO members. Which countries' views will not be given "special weight?"

Answer. The contents of the Athens Guidelines are classified and can be obtained from the Joint Committee on Atomic Energy.

Which countries will meet the criteria specified in the above quotation would depend on the scenario of Warsaw Pact attack.

Question 49. Several previous witnesses have stated that the strategy of "flexible response", as presently described in NATO Doctrine, is not a viable military plan.

Professor Stanley Hoffmann described it as a "rationalization of policies decided largely for American internal reasons."

Dr. Halperin said that thus far there has been "almost no success in the attempt to develop a doctrine for the use of tactical nuclear weapons on the European battlefield" and that "the kinds of weapons which the Army has deployed have been largely a matter of fashion."

Mr. Warnke said that "no one has yet been able to devise any reasonable set of scenarios for the use of the tactical nuclear weapons we now have in Europe."

Professor Enthoven argued that "there is no such thing as tactical nuclear war in the sense of sustained purposive military operations."

Would you comment on these views?

Answer. The NATO strategy of "flexible response" encompasses most of the conflict situations one can envision and almost all of the logical responses to them. Some say that there is no current doctrine or scenario for tactical use of nuclear weapons in Europe. This view overlooks the many studies, policies, plans and procedures that exist. We are not satisfied with our current answers, but neither should it be concluded that responsible leaders do not have logical options to serve as a basis for decisions when needed. Rather, we are seeking to expand and improve the range of options. These options serve to preserve deterrence, and if deterrence fails, are meant to terminate the conflict at the lowest possible level. We would agree that "sustained purpose military operations" are not a desirable mode of nuclear war.

Question 50. When the Soviets acquired and deployed tactical nuclear weapons in Europe it would seem that our option to *use* such weapons was drastically reduced. Yet the only change we made was on paper, while we continued to enlarge our inventory, this despite the fact that most outside observers—American and European—agree that the use of any significant number of nuclear weapons would destroy what we were trying to defend. Can you explain why our stockpile has not been adjusted to these realities?

Answer. The presence of U.S. nuclear weapons is essential to deter the use of such weapons by the Soviets. The deployments needed to provide that deterrence and for warfighting, should deterrence fail, should consider the size of the Soviet threat. It does not follow that, as the Soviet threat grows, we should reduce our weapons. NATO has also been bolstering its conventional capabilities in this period.

Question 51. The Subcommittee staff report noted that about two-thirds of the over 100 nuclear weapons storage sites in Europe are for weapons to be used by allied forces. What are your feelings about the political, security and command and control implications of our arrangements to provide nuclear weapons to our allies on such a vast scale?

Answer. The storage sites in Europe serve U.S. forces or allied forces, and—in many cases—both. The U.S. maintains custody of the nuclear weapons. The resources provided to protect these weapons also involve allied units, men, and funds. Both our allies and ourselves believe that this investment is warranted.

We both also believe that we must continually review those arrangements in order to preserve essential security and control. We do not agree that the scale of these arrangements is vast; it is quite manageable and demands only a very small part of NATO's considerable defense resources.

Question 52. Dr. Halperin has told the Committee that it should be possible to make a substantial reduction in the number of nuclear weapons stationed in Europe and to regroup these weapons so that they are in separate units under the direct control of the American Commander of the NATO forces. Do you believe that such changes are feasible and desirable?

Answer. We may be able to make changes in the stockpile with more effective weapons. The size of the stockpile relates to our strategy, our force levels, the capability of the weapons, the Soviet threat, and other factors. We cannot now state that a substantial reduction is presently feasible. Again it should be noted that U.S. weapons in Europe are in U.S. custody, under the management in Europe of CINCEUR, who doubles as SACEUR.

Question 53. Professor Enthoven told the Committee that "the whole QRA job (Quick Reaction Alert) could be done much better and cheaper by three or four Poseidon submarines with MIRV warheads." Could our QRA aircraft be replaced, as Professor Enthoven suggests, by submarine launched ballistic missiles?

Answer. We continuously review the alternatives for performing various possible nuclear weapon tasks. As indicated in my answer to a previous question, European interest in QRA aircraft has stemmed in part from the visible deterrent characteristics of these forces. As advanced weapons become available for targeting, the merits of each weapon system are evaluated, but it is doubtful that submarines, regardless of overall effectiveness, could fully substitute for the highly flexible and immediately responsible QRA aircraft.

Question 54. Is one of the reasons for QRA to provide other NATO countries with some participation by virtue of the fact that some of their aircraft flown by their pilots would be involved in launching any nuclear attack? What do you think of QRA as a device for allowing our allies to have a "finger on the trigger"? How could other NATO countries maintain a "finger on the trigger" if the whole QRA job were turned over to Poseidon submarines? Once an allied QRA aircraft is launched, do we have any means of disarming the nuclear weapon it would be carrying? What assurance do we have that the allied pilot would strike the intended target?

Answer. A distinction should be made between all nuclear-capable aircraft and those aircraft on Quick Reaction Alert. QRA in peacetime permits a visible allied role in the deterrent. Planning of allied aircraft within strike plans does provide other NATO countries an opportunity to participate in certain nuclear strikes when use of those weapons has been authorized. We do not believe that QRA provides our allies with a "finger on the trigger" in the sense that they can make a unilateral decision to use the weapons on the aircraft. Those weapons remained in U.S. custody and unarmed until proper authority is given to enable them to be armed. Although there is no specific provision for remote disarming of a nuclear weapon aboard a NATO aircraft after aircraft launch, the presence of the human pilot does provide an opportunity for recall. After launch from the aircraft the air weapon cannot be disarmed, any more than a Poseidon missile could be disarmed after launch from the submarine. The carefully selected, highly motivated and trained NATO military pilot assigned a QRA mission in a war against an aggressor is defending his own country and thus has every motivation assuredly to deliver his load on target.

Question 55. Why are QRA aircraft armed only with nuclear weapons? Would it not be better to have some QRA aircraft conventionally armed so as to increase our operations? Is the Pueblo experience relevant in this connection?

Answer. QRA is a technical term to denote those few aircraft which are on alert with nuclear weapons. Other NATO aircraft are on air defense alert, armed with conventional weapons. Others can be put on alert with conventional weapons if needed. The Pueblo experience is not relevant in Europe in this regard.

Question 56. In view of the determined and longstanding German opposition to ADM's (atomic demolition munitions) why do we continue to pressure the Germans to permit prechambering for ADM's? Is it not true that the use of ADM's would require an early decision to escalate to nuclear weapons and that

the emplacement of such weapons would put the President of the United States in the position that he has to fire the weapons or else face their being overrun and captured by the enemy? Why shouldn't we bring the ADM's home?

Answer. There is no attempt to pressure our European allies on any particular nuclear weapon system or device. Our European allies have responded favorably to the objectives and the measures taken to attain increased flexibility and selectivity in nuclear weapons for tactical use. ADM's enlarge the range of options under NATO's strategy of flexibility in response, particularly in the defense of forward areas. We have the capability to move these weapons forward when authorized for employment or to the rear in a retrograde situation. It should be pointed out that the deployment of nuclear weapons is reviewed by the President and approved on an annual basis.

Question 57. Has the German Government agreed to the deployment of the new 155-mm. and 8-inch shells for which the Defense Department and AEC are seeking funds?

Answer. Information concerning deployment of weapons to specific countries is on file with the Joint Committee on Atomic Energy. Our policy is to consult with our allies before deploying a new weapon system on European soil.

Question 58. Professor Enthoven argues that nuclear warheads for surface-to-air missiles "make no sense at all." Would you comment on his suggestion that we could get more defense effectiveness for our money if we put the same resources into a larger number of non-nuclear surface-to-air missiles which could be used in a much wider variety of circumstances?

Answer. A mix of nuclear and conventional surface-to-air missiles provides a deterrent to the enemy's use of massed formation tactics in many cases. NATO has many other surface-to-air missile systems, like HAWK, which are conventional only.

Question 59. If one of the objectives of the mini-nuke development program is to acquire higher accuracy weapons in the subkiloton range would it not be more desirable to use conventional warheads in such weapons, thereby avoiding the enormous risks involved in employing even very small nuclear weapons?

Answer. We continue to seek reduced yield and increase accuracy in tactical nuclear weapons to decrease unwanted damage and yet sustain the needed capability for target destruction. Such improvements increase the credibility of our current stockpile, thereby enhancing its deterrent value. However, where conventional weapons could do the job, they would be used, and in fact the development and deployment of these weapons—such as TOW and MAVERICK—is being aggressively pursued with much larger funds devoted to those programs. DoD is not developing a "mini-nuke" for the purpose of making nuclear weapons easier to use.

Question 60. Some observers, such as Professor Stanley Hoffmann, have suggested that in connection with the mutual balanced force reduction talks that the U.S. agree to a reduction in its tactical nuclear weapons in exchange for Soviet cuts in conventional forces. Do you believe that reductions in the United States' nuclear stockpile in Europe should be contingent upon reciprocal actions by the Soviet Union?

Answer. While our tactical nuclear posture in Europe is not immutable, it is highly desirable that reductions in the United States nuclear stockpile in Europe should be contingent upon reciprocal actions by the Soviet Union. Any such proposals or reductions would not be made prior to consultation with our NATO allies.

Question 61. What would be your reaction to the possible inclusion of U.S. forward based systems in an agreement limiting U.S. and Soviet strategic forces?

Answer. U.S. "forward based systems" are deployed in consonance with our responsibilities to NATO. They are therefore outside the SALT arena as are similar Soviet weapons facing NATO.

Question 62. Given the range of our forward based aircraft, is it unreasonable for the Soviets to consider them *strategic* systems?

Answer. We believe it unreasonable for the Soviets to consider them strategic systems, since they are forward-based for the defense of Europe, and mainly have a conventional tactical air role. A much more reasonable case can be made that Soviet IR/MRBMs are strategic systems.

Question 63. It has recently been reported that U.S. forward based systems may be one of the factors complicating SALT II discussions with the Soviet Union. Given the vulnerability of these systems and the apparent ease with which they could be replaced by the retargeting sub-launched ballistic missiles, why should the United States insist upon retaining these systems and in excluding them from the definition of "strategic" forces?

Answer. What the Soviets call "forward-based systems" support the NATO alliance and must be considered in that context.

Question 64. Do you believe that the introduction of low yield "mini-nukes" would tend to emphasize nuclear *defense* more than nuclear *deterrence*?

Answer. Our nuclear weapons in Europe are present for deterrence, and deterrence is made credible by a credible warfighting capability. It should be noted that smaller low yield tactical nuclear warheads is not new. We had the Davy Crockett, a very low yield nuclear weapon system, in the stockpile from 1961 to 1970 and currently have very low yield Walleye air-to-surface missiles, ADM's, artillery rounds, and bombs. Thus, the concept of the "mini-nuke" that some writers have portrayed as representing a radically new family of new designs of extremely small size does not exist as such. We continue to seek more accurate systems and more lethal effects from lower yields to improve military effectiveness and decrease unwanted damage. Such improvements could increase the credibility of our tactical nuclear stockpile through better warfighting capability, thereby enhancing deterrence.

Question 65. Would the introduction of new mini-nukes permit reductions in tactical and conventional forces?

Answer. As indicated earlier, a new "mini-nuke" program does not exist.

Question 66. The principal justification presented by General Goodpaster last year for a new generation of tactical nuclear weapons was that "achievable new weapons of lower yields and of greater accuracy could increase military effectiveness, while reducing collateral damage, thereby increasing their utility as well as the acceptability in NATO planning for employment in the NATO countries and in adjacent areas in which they would most likely be used." What did the General mean by saying that lower yields would increase the "acceptability" of mini-nukes in NATO planning?

Answer. Increased accuracy permits the use of lower yield weapons to achieve the damage desired on a target. At the same time, the use of a more accurate, lower-yield weapon decreases the probability of unwanted damage. In this sense, it is generally accepted that an improved nuclear stockpile would provide a greater capability for planning against a massive conventional or nuclear attack. The combination of improved military effectiveness and increased allied acceptability enhance the deterrent effect of our tactical nuclear stockpile.

Question 67. Has NATO adopted an agreed position on the introduction of mini-nukes?

Answer. There is no accepted definition of the term "mini-nuke." Our NATO allies have shown continuing interest in weapons which achieve necessary military effectiveness with less collateral damage. At the same time there is understandable concern that we not reduce the deterrent effect of our posture by the changes we make in our stockpile of weapons for tactical use.

Question 68. It is said that the new generation of tactical nuclear weapons would have lower yield, greater accuracy and fewer collateral consequences. What would be the average yield and the range of yields of the new generation of tactical nuclear weapons? How would the new weapons result in fewer collateral consequences?

What studies have been done to estimate the collateral consequences which would result from the use of the new weapons as compared with those now in our European stockpile?

Answer. New generation tactical nuclear weapons would have yields in the subkiloton and kiloton range. By using a more accurate weapon, a lower yield could be used and still achieve the needed target destruction. Less unwanted damage would result.

Question 69. Mr. Warnke offered the opinion that it would cost "billions of dollars" and Dr. Enthoven said that it would cost \$3 billion to deploy a new generation of tactical nuclear weapons. Can you tell us the overall cost of the presently projected replacement program? Will it include a new very small

surface-to-surface warhead or "smart" air-dropped nuclear bombs in addition to the 155-mm. and 8-inch shells already requested?

Answer. The answer is classified and is in the Committee's files.

Question 70. You are reported to have said elsewhere that the Europeans would regard "flexibility and selectivity" in our strategic forces as desirable because, in your view, these attributes would make our deterrence more plausible or credible. Several of our witnesses, however, have taken the view that the Europeans prefer absolute deterrence and would be made uneasy by new strategy which might make nuclear war-fighting, especially in Europe, more likely while reducing the likelihood of a full scale U.S. strategic response. Would you comment?

Answer. The responses of our European allies to the new strategic targeting doctrine of flexibility and selectivity have been uniformly favorable, since they see it as enhancing deterrence by more firmly coupling U.S. strategic nuclear forces to deterrence of attack on NATO. We believe that the new doctrine will make nuclear war less likely, rather than more likely.

Question 71. Professor Hoffmann has pointed out that your counter force doctrine may be regarded by the Europeans "not just as an effort to restore NATO faith in nuclear deterrence, but also an instrument for reasserting American preeminence in the Alliance" because it would obviate the necessity for Europeans to improve their own deterrent capability. Would you comment?

Answer. Our revised doctrine is not a counterforce doctrine, but is a doctrine of flexibility and selectivity. It is not an instrument for reasserting American preeminence in the Alliance; we have been pursuing a policy of urging the Europeans to take a greater responsibility for NATO defense, for more equitably sharing the burden. U.S. policy continues to support non-proliferation. One factor affecting the extent and velocity of nuclear proliferation is the degree to which other countries believe that the U.S. strategic deterrent continues—or fails—to protect them. Accordingly, in support of our non-proliferation policy, we must take account of the concerns of other countries in our doctrine and force planning.

Question 72. What is your view on the further development of a European nuclear force? Would this not increase the uncertainty with which Soviet planners have to cope? What would be the objections from an American point of view?

Answer. A European nuclear force would increase the uncertainty with which Soviet planners have to cope. The U.K. and French nuclear forces must pose uncertainty today to the Soviets. Although the European nuclear force concept is not new, there appears to be little likelihood that it can be achieved in the near future. In part, this is because as long as the defense of NATO Europe is closely linked to our own defense, most Europeans do not feel the need to develop a separate, and costly, deterrent of their own.

Question 73. Do you believe that the independent European nuclear forces—the French and British—are a stabilizing or destabilizing factor in the strategic equation?

Answer. British nuclear forces are integrated into the NATO strategy and thus contribute to the nuclear deterrent and stability. French authorities certainly appreciate the potential seriousness of nuclear war and are thus unlikely to threaten nuclear use provocatively. We thus believe that French nuclear forces have not been destabilizing.

Question 74. You believe that selectivity and flexibility in the targetting of American strategic systems makes our deterrence more credible. The same justification has been applied to support the argument for "smaller and cleaner" tactical nuclear weapons. Professor Hoffmann, a leading academic authority on Europe, has told this Committee that the Europeans "are less than enthusiastic about devising "rational use" strategies for the case of a failure of deterrence, because none of these appears really bearable, and also because they fear that such strategies, by making war less destructive for the superpowers, may also make it less 'unthinkable' and thus have far less deterrent value." Would you comment on this European view with regard, first, to tactical nuclear weapons and second, to strategic weapons?

Answer. Our allies have supported the NATO strategy of flexible response. Tactical nuclear weapons and strategic nuclear weapons have important roles in this strategy for deterrence, and if deterrence should fail, for warfighting. Our allies share this view.

Question 75. Would improvements in the flexibility and targeting of our missile forces permit any reductions in our current tactical nuclear stockpile in Europe? How would the changes which you have proposed affect the role and mission of our NATO forward based systems?

Answer. Changes in the flexibility and targeting of our present nuclear forces—including both strategic and theater forces—have been developed on the basis of present capabilities, including present theater nuclear capabilities. Thus these changes do not point to reduction of those forces, nor do they necessarily demand different capabilities.

Question 76. In commenting upon the changes which you have proposed, Mr. Warnke expressed doubt that the Soviet leadership would be more deterred by the knowledge that our new doctrine encompasses a nuclear response that would be less costly to Soviet society than the doctrine we have discarded. Would you comment on his view?

Answer. I do not share that opinion.

Question 77. On page 8, in discussing security you state that “regardless of the size of the warhead or the location on the battlefield, all weapons are under positive control to prevent their use before release by the President.” Would this statement apply to individual 155-mm. or 8-inch shells and to bombs on allied nuclear delivery aircraft once the aircraft have been launched?

Answer. That statement applies to all U.S. nuclear weapons. Aircraft would not be launched before weapons had been released for use by the President.

Question 78. On page 5 you mention that the NATO Nuclear Planning Group is currently working on “the possible follow-on tactical use of nuclear weapons.” Would you explain what this concept involves?

Answer. The NATO Nuclear Planning Group has used the term “follow-on use” of nuclear weapons to indicate further use should the objectives of initial use not be achieved.

Question 79. On page 10 you refer to the existence of “Programs of Cooperation with a number of NATO countries.” With what countries do we have such agreements? With what countries do we have “Atomic Energy: Cooperation for Mutual Defense” and service-to-service stockpile agreements? Do we have either type of agreement with Korea or the Philippines?

Answer. Answer provided under Question 9.

[Whereupon, at 12:50 p.m., the subcommittee was adjourned, subject to the call of the Chair.]

[From the Congressional Record, July 1, 1971]

TACTICAL NUCLEAR WEAPONS FOR EUROPE

(By Hon. John G. Schmitz)

Mr. SCHMITZ. Mr. Speaker, an article in *Military Review* magazine, the journal of the U.S. Army Command and General Staff College at Fort Leavenworth, Kans., of July this year, brings to light the impasse which now faces the Western world concerning the defense of NATO.

The author of this piece, Gen. Heinz Trettner, formerly Deputy Assistant Chief of Staff, Logistics, North Atlantic Treaty Organization Headquarters, points out that when the U.S. defense doctrine of massive retaliation was overtaken by increased Soviet military might the high degree of security which unquestionable American nuclear superiority provided Europe vanished. As the Soviet Union vastly increased its nuclear capability, with no attempt on the part of the United States to maintain nuclear superiority, a level of strategic force relationships came into being in which a U.S. attack on the Soviet homeland in response to any Soviet attack on Western Europe became unbelievable.

As the credibility of U.S. retaliation against the Soviet Union itself, should it decide to militarily annex Western Europe, decreased, the insecurity of Western Europe increased.

The author analyzes the role of tactical nuclear weapons in this context as a deterrent to Soviet military aggression against Europe. The general concludes that—

Having these weapons (tactical nuclear) may deter the aggressor from being the first to use them, but they cannot serve as a real deterrent against all forms of aggression. A ruthless enemy cannot be deterred by fighting only the most forward wave of his forces; he can only be deterred by a threat to his own country.

The truth of this statement has been made manifest in Southeast Asia. The North Vietnamese Communists have sacrificed nearly 700,000 men of their armed expeditionary forces in an attempt to bring South Vietnam under their heel. As the United States continued to assure the North Vietnamese that we would not attempt to overthrow their Government they continued to send their fighting forces south.

The United States deterred, and continue to deter, itself in this case renouncing the only objective which would have possibly deterred, or if not deterred, forcibly prevented the North Vietnamese Politburo from sending its armies marching all over Southeast Asia. In the case of the Soviet Union at this point it is not simply a question of unparalleled mental obfuscation which would deter the United States from attacking the Soviet Union heartland in response to a Soviet attack on Europe, but rather a clear understanding of the disadvantageous strategic military force relationship which currently exists.

In either case we find ourselves unable to undertake decisive action against the material base from which the attack is being, or could be, launched.

By foreclosing this U.S. option as regards a possible Soviet attack on Western Europe through insufficient military preparedness measures, we may well be inviting the same type of attack on Western Europe as the North Vietnamese Communists have launched in Southeast Asia. A relatively secure enemy homeland deprives us of our greatest deterrent.

The article by General Trettner follows.

TACTICAL NUCLEAR WEAPONS FOR EUROPE

(By Gen. Heinz Trettner)

(NOTE.—This article was translated and condensed from the original, published in the *Revue Militaire Generale* (France) February 1971, under the title, "Atomare Gefechtsfeldwaffen für Mitteleuropa?")

(General Trettner, while on active duty, served as Deputy Assistant Chief of Staff, Logistics, North Atlantic Treaty Organization Headquarters; Commander in Chief, 1st Corps; and Chief of Staff, Armed Forces of the German Federal Republic.)

The utilization of nuclear energy in the manufacture of weapons has changed political and military thinking. The first nuclear weapons were strategic weapons. Their employment—whose moral justification is still a matter of dispute—was so successful that it was natural to attempt to utilize nuclear energy in lower level conflicts. The only question was whether it was technologically feasible to reduce the size, weight, and effectiveness of the new weapons to a degree which would make them suitable for tactical operations.

Thus, development of nuclear weapons was opposite to that of conventional weapons. With conventional weapons, it was a matter of achieving ever greater destructive power. Nuclear weapons development efforts were aimed at reducing weight and containing the explosive power. If this could be achieved, it was thought that the need for manpower on the battlefield could be reduced. Perhaps the conventional arms race could be ended through the economical application of nuclear energy. In contrast to conventional weapons, a limited number of tactical nuclear weapons could end any military conflict successfully and rapidly.

The technological problem was solved at great cost, but with admirable speed. The United States had tactical nuclear weapons and the necessary delivery vehicles for its troops and allies as early as the 1950's.

NUCLEAR DISADVANTAGES

At that time, it would have been difficult to overestimate the value of these weapons. There was the prospect that these weapons would help keep in check the numerically superior conventional forces of the Soviet Union while strategic nuclear weapons threatened the homeland of the aggressor. This concept was clear and simple. It was based on the US monopoly of nuclear weapons which was fading away only gradually. Nuclear war was considered a unity. Vis-a-vis strategic weapons, tactical nuclear weapons had the advantage of greater aiming accuracy and a smaller radius of destruction. This allowed tactical operations on the territory of allies who were to be spared as much damage as possible.

Despite these developments, the new weapons could not be added to the conventional weapons arsenal. While heat, blast, and primary radiation could be controlled to the extent that their effects could be kept from the friendly forces by appropriate target analysis, the drift of fallout could not be precisely determined. The civilian population could receive only relatively inadequate protection by restricting the use of nuclear weapons in built-up areas.

These disadvantages of nuclear weapons considerably limited their practical utility. Even now, in war games, fallout is often either neglected as an incalculable factor or manipulated. This results in a false picture. In reality, the closer ground zero is to friendly forces, the more frequently the employment of nuclear weapons must be foregone so as not to endanger friendly forces. Tactical nuclear weapons are not yet "clean" enough.

POLITICAL WEAPONS

A much more important fact is that only the President of the United States can order the employment of these weapons. It is clear that the political implications of nuclear weapons outweigh the military considerations. They are primarily political weapons. The efforts made by the North Atlantic Treaty Organization toward adopting a decisionmaking process for the employment of nuclear weapons have not produced a satisfactory solution. Consultations are an inadequate substitute for a positive voice in nuclear matters within the alliance and distinctly illustrate the political nature of the new weapons.

Proceeding from the original assumption that nuclear war is not divisible into limited and general, the French view seems to be irrefutable. France contends that the employment of nuclear weapons is a matter of life and death of the nation concerned. Therefore, the decision to use nuclear weapons cannot be made by an outside power. Thus, the employment of nuclear weapons for the achievement of tactical or secondary objectives would be unthinkable. On the contrary, the release of, or the denial of the use of, tactical nuclear weapons would have to be dependent upon the whole political-strategic situation.

In the meantime the Soviets have reached parity in the field of nuclear armament. The US monopoly no longer exists, and, as a consequence, US military strategy has changed from massive retaliation to flexible response. It was with misgivings that the Europeans saw the doctrine change because the strategy

of massive retaliation had afforded them a high degree of security. However, the Europeans had to reconcile themselves to the new realities of US strategy.

The principle that the West will not start a war under any circumstances is as valid as ever. But in the future, an aggression will not be met with the immediate destruction of the aggressor homeland, but with an "appropriate" response. The aggressor no longer has to reckon on certain ruin, only on the uncertainty of a prospective countermeasure. Inasmuch as the strategic potential of the Soviet Union has become largely invulnerable, and a second strike against the US mainland remains a possibility, an immediate nuclear strike launched by the West in response to an aggression is no longer probable. Against any other action, the Soviets are sufficiently armed.

Consequently, the insecurity of the West has increased. The weapon systems have changed roles: nuclear armament has become the shield and conventional armament the sword of the alliance. At the same time, the significance of tactical nuclear weapons. Now, they are being considered as a means of fire support for conventional forces.

Edward Teller, the principal developer of the hydrogen bomb, held that war could easily be limited with respect to area and targets, but not in regard to weapons. He, therefore, recommended the employment of tactical nuclear weapons in limited war. According to his view, the aggressor, after a defeat on the battlefield, would no longer want to enlarge the conflict area. Teller wanted to halt the advance of the superior Soviet conventional forces with nuclear weapons in the combat area. In this way of thinking, the West, inferior in conventional armament, had no intention of expanding a conflict, and the Soviets, after a tactical nuclear rebuff, would have no desire to do so.

Other American scientists recommended slow, well-measured escalation mixed with political measures to avoid a general war.

Under the influence of these and other theories, NATO doctrine changed, and the significance of conventional forces in Europe increased. These forces were expected to fight through the first phases of an armed conflict alone, without a strategic nuclear response. The logical conclusion would have been to increase conventional forces, but this was not done. Raising the nuclear threshold remained a mere declaration of intent.

INDEPENDENT ACTIONS

If total employment of the nuclear potential had to be avoided, the question of independent actions with tactical nuclear weapons became more important. For the United States, the risk involved in the employment of tactical nuclear weapons was relatively small because of the strategic balance between the United States and the Soviet Union. Separate employment of tactical weapons, therefore, became conceivable.

For the Europeans, however, it was a different matter. It was important for them to determine whether the inferiority in conventional troops in central Europe could actually be offset by separate employment of tactical nuclear weapons. The fact that the Soviets had also reached approximate parity in the field of tactical nuclear devices had to be considered.

Experts have not been able to agree as to whether the defender or the aggressor stands to gain from the use of tactical nuclear weapons. The aggressor can freely determine the time and place of the main effort, and he presents almost exclusively, moving targets which are difficult to hit. The defender, on the other hand, does not need to leave his cover, and concentration of forces is not necessary. Because of the need for decisive findings, a scientific solution was sought by means of modern operational research methods.

The results of the independently conducted research show that the separate employment of tactical nuclear weapons, even in large quantities, holds no advantage for the defender. True, he can inflict greater losses on the aggressor than he will suffer because the aggressor must temporarily concentrate his forces at crucial points. However, the over-all ratio of strength changes to the disadvantage of the defender. Locally, a delay of enemy attacks can be achieved, but it must be expected that the units of the front line will be rapidly consumed.

The defender does not gain any time; on the contrary, he faces the alternative of "all or nothing" much earlier than he would have had he continued to fight with conventional weapons only. Since the West has no conventional units for a

second or third encounter, it will, after a few hours, have no forces which can withstand the attack of the second wave of forces brought forward by the aggressor.

Under the conditions in central Europe, the employment of tactical nuclear weapons works to the advantage of the aggressor. This result was reached by assuming that both parties fight with approximately the same number of weapons of equal yield. This assumption is unrealistic. The Soviets do not have a large number of sophisticated, small, nuclear weapons, and no reason to keep the destruction on enemy territory to a minimum. If the enemy counters the employment of small-yield nuclear weapons by launching an attack with weapons of a greater caliber, the disadvantage to the defender becomes even greater.

POLITICAL CONSIDERATIONS

Political considerations must be added. In a highly developed area such as central Europe, the communications system is so dense that individual attacks can be halted only with a relatively great number of tactical nuclear weapons. True, the number of weapons necessary is available in Europe, but, if employed, they would devastate the densely populated area and inflict unacceptable losses on the population. A tactical nuclear defense of Europe would lead to its destruction.

The situation of the defender who must fight in his own country differs completely from that of the aggressor. In addition to the military losses incurred by nuclear combat, the defender must bear the unimaginable damages in the civil sector which easily could lead to the complete disintegration of all political and military order.

Certainly, one can disregard these considerations and place the highest priority on the combat mission by employing hundreds or even thousands of weapons. Such a course of action would be evidence of narrow militaristic thinking, and raise the question as to how such action could be morally justified. It is open to debate whether weapons intended to protect by destroying everything can be considered lawful weapons.

PSYCHOLOGICAL EFFECT

In nearly all war games and studies, another decisive factor is ignored because its weight has not been determined from experience—the psychological effect of nuclear explosions on man. Even if one is so optimistic as to believe that soldiers can be trained to move through battlefields devastated by nuclear weapons and execute their tactical missions, the same behavior cannot be expected from the unprotected civilian population. In a modern war, even the best soldier cannot function with a demoralized population and a devastated land behind him.

It may be argued that tactical nuclear weapons are primarily intended to serve as a deterrent, and that other arguments ignored the main problem. Tactical nuclear weapons are clearly needed so long as the enemy has them at his disposal. Having these weapons may deter the aggressor from being the first to use them, but they cannot serve as a real deterrent against all forms of aggression. A ruthless enemy cannot be deterred by fighting only the most forward wave of his forces; he can only be deterred by a threat to his own country. That tactical nuclear weapons favor the aggressor will also be apparent to him. This is not effective deterrence.

The Western partners of NATO, depending on the situation of their national interests, look upon these problems differently. French units stationed in West Germany will be armed with tactical nuclear weapons sometime in the 1970's. If the Free Western World is considered a unity, and if the equality of its sovereign nations is taken seriously, the diverse views on tactical nuclear weapons employment must be resolved.

Helmut Schmidt, the present Defense Minister of West Germany, has demanded a veto right for any nation from whose or on whose soil nuclear weapons are to be fired. This demand is the least that must be granted among equal partners of an alliance.

The necessity of such unusual arrangements suggests that something is wrong with the entire concept. One inevitably comes to the conclusion that today's tactical nuclear weapons break open the framework of tactical operations. Their

separate employment on the battlefield is damaging to the Europeans without being useful to the Americans. It appears that the idea of applying this concept under central European conditions is wrong.

[From ORBIS, Spring 1971]

TACTICAL NUCLEAR WEAPONS AND U.S. MILITARY STRATEGY

(By Samuel T. Cohen)

The first quarter-century of the nuclear age undoubtedly will be remembered as a unique era. For during that period the world did not experience a conflict involving nuclear weapons. Why? Were those twenty-five years of nonuse a time of fortuitous international circumstances? Did that period result from "deliberate avoidance" among the major nuclear powers? In debating this point U.S. defense policy emerges as a factor. Throughout most of this period of nuclear nonuse the major tenet of U.S. national security policy was—and remains to date—the intense desire to avoid nuclear warfare and to solve military problems through nonnuclear means. Since 1961 that desire has been enunciated in our policy of Flexible Response.

Many events and changes have had a profound effect on the question of nuclear weapons usage by the United States. Regarding weapons policy, these events and changes fall into three key categories: (1) the American ability to use conventional forces; (2) the Soviet nuclear buildup, strategic and tactical; and (3) the proliferation of national nuclear weapons capabilities.

In the early 1950's and late 1960's the United States fought "limited" conventional wars in Korea and Viet Nam. While constrained in terms of strategy and geography, neither of these conflicts was very limited regarding the level of military effort, the cost of the effort and the effect on the U.S. domestic scene.

The Korean war, a military and political trauma, forced a change in U.S. policy. In 1953 the United States decided to prevent such involvements in the future through a policy of nuclear retaliation against the aggressor. Pragmatically speaking, the Eisenhower policy worked. The United States maintained her foreign commitments while she deterred aggression at levels even substantially below that which had occurred in Korea. It should be realized, however, that during those years the United States held a nuclear arsenal far superior to the Soviet Union's.

II

American involvement in the Viet Nam war began under the Flexible Response policy adopted by the Kennedy Administration. At that time Soviet strategic nuclear forces were of such strength that they raised grave doubts concerning the possible consequences of escalation in the event that the United States used nuclear weapons at the tactical level. For this reason, in addition to concern over the moral and political implications of nuclear usage, the decision was made to prosecute the war with conventional weapons only. The results, however, have been far less rewarding than those of the Korean involvement. As a consequence, the policy has now been geared to avoid such undertakings in Asia by dint of refusing direct U.S. combat participation, viz., the Nixon Doctrine.

The subject of present and future U.S. abilities to engage in nonnuclear war hardly lends itself to refined analysis. Rather, it requires the broadest military judgments; the kind, for example, that led Douglas MacArthur, after Korea, to warn against fighting further land wars in Asia.

Somehow, although there are highly quantified analyses that show that the potential exists to conduct conventional operations in a considerably more effective manner than previously, official Washington seems unable to cope with the essentials of conventional war. Despite all that modern technology has contributed to the conduct of such wars, the fundamental equation remains one of human beings, not of machines. The United States, however, has stressed the use of machines to deliver massive amounts of conventional firepower. In so doing, her primary aim has been to conserve manpower. This credo is difficult to assail; but it is pitted against an enemy who has little regard for manpower, and the result can be a war whose proportions, duration and inconclusiveness lead to domestic political rejection. This has been the impact of the Viet Nam involvement.

III

The United States faces the dilemma of relating conventional military force to its foreign policy objectives. C. L. Sulzberger has noted:

The greatest lesson of the Vietnam war is that America still has many commitments abroad and still retains foreign policy aims that can no longer be maintained by the kind of military establishment, strategy or network of alliances now employed.

This is quite clearly emphasized in the diminishing power of NATO vis-à-vis its potential adversaries and also in growing pressure by U.S. opinion to reduce forces abroad, not only in South Vietnam and South Korea but also in Europe.¹

How well the Nixon Doctrine will fare in helping Asian nations to defend themselves against communist aggression remains to be seen. But it seems that MacArthur's warnings have been heeded and that the prospects for direct U.S. conventional involvement in Asia are dim. The Nixon Doctrine stipulates that the United States will provide a nuclear shield against attack by a nuclear power, yet it is unclear about what this shield is or how it will be used. Moreover, it does not say what U.S. action might be taken in the event of future aggression by either Viet Nam or North Korea.

In Europe, despite the shortcomings in conventional operations in Viet Nam and despite the unsatisfactory record of conventional emphasis in NATO, the United States emphasizes nonnuclear capabilities for deterring possible aggression by the Warsaw Pact. While the consensus of military judgment has been that the Pact's conventional forces have always excelled NATO's, it is hoped apparently that renewed U.S. effort and greater European cooperation will establish a conventional parity with the Pact, thereby avoiding reliance on nuclear weapons. How realistic is it to expect success? Even if this were achieved, how meaningful would such parity be to NATO's defense and deterrent posture?

When assessing NATO's conventional capabilities, the political desirability for them is at least as important as the judgment of the military. In the United States the requirement for adequate conventional response has been critically affected by the desire to avoid nuclear responses. The prevailing opinion has been that any nuclear response is politically unacceptable and increases the chances for general nuclear war. (That this attitude has existed, and continues to exist, for Asian defense is indicated by the recent decision to turn conventional defense over to Asian allies rather than to redefine direct U.S. participation along tactical nuclear lines.) European allies, however, have held a generally different view. Opposing increased draft quotas, stressing economic difficulties that prohibit increased military budgets, and unreceptive to repeating their World War II experiences, Europeans have preferred to rely primarily on America's strategic nuclear guarantee.

Although Washington made intensive efforts during the 1960's to increase NATO's conventional capabilities to the level of the Warsaw Pact forces, the European allies essentially refused to accede to U.S. demands. At this juncture there exists an allied pledge, principally by West Germany, for certain weapons modernization efforts and some additional force employment, but can it be expected that more required effort will be made to close what is widely considered to be a substantial gap in capabilities? Probably not, since the factors that made this impossible during the 1960's have not changed much. Moreover, although the United States has pledged to maintain her NATO conventional strength and reaffirmed her adherence to conventional emphasis, how realistic is it to expect that this avowal can long resist mounting domestic pressures for force reduction?

One is hard pressed to forecast with any confidence the achievement of NATO-Warsaw Pact conventional parity. This goal, now sought for a decade, probably will remain beyond NATO's grasp. Furthermore, considering Soviet nuclear weapons developments in the last decade, justification of this goal becomes increasingly difficult.

IV

We might recall that during the early 1960's the U.S. debate on the comprehensive nuclear test ban was influenced heavily by considerations of the U.S.-

¹ C. L. Sulzberger, "Solving an Ugly Dilemma," *New York Times*, November 15, 1970.

USSR tactical nuclear weapons balance. Washington, in pointing out the benefits of test cessation at that time, emphasized America's substantial advantage over the Soviet Union in tactical nuclear weapons. Since no serious tactical nuclear threat existed then, this large superiority not only could be used to justify a comprehensive test ban treaty, but it could serve to fortify the arguments for emphasizing conventional defense in NATO. That, however was nearly a decade ago. What about today?

In considering this question, the opinions of Denis Healey, then British Defense Secretary, merit our attention :

I don't think it would, in fact, make sense for NATO to aim at an all-out conventional defense against an all-out Warsaw Pact conventional attack because all Soviet exercises and training assume the use of nuclear weapons from the word "go," so I think an all-out conventional attack is very unlikely . . . the other side would use nuclear weapons to begin with and there's a great deal of evidence for that, both in the exercises they do and what they write in their strategic journals.²

Healey's observations on the Soviet tactical nuclear emphasis—in sharp contrast to the United States' conventional emphasis—seem well-founded. The Soviets apparently decided, back in 1954, to develop tactical nuclear capabilities.³ By the late 1950's appreciable numbers of nuclear delivery systems appeared in the Soviet armed forces, and during the 1960's these weapons increased in both quantity and quality. Extensive use of nuclear rockets and missiles, in support of highly mobile tank and infantry units, forms the basis of the Soviet doctrine. Stressing surprise, speed and dispersion, these mobile forces can exploit nuclear rocket and missile strikes and simultaneously avoid presenting lucrative targets to enemy nuclear fire.

In contrast to Washington's apprehensions over Moscow's massive strategic buildup (which is still increasing), strangely enough there has been no noticeable public concern over the Warsaw Pact's tactical nuclear buildup and its implications for NATO's defense. It is interesting to note that while the United States has engaged in a major and continuous effort to change and modernize her strategic posture by minimizing her vulnerability to possible Soviet strategic nuclear attack, she has done relatively little to change NATO's posture toward minimizing its vulnerability to Soviet tactical nuclear attack. Yet, in terms of possible risk to the Soviets it would appear much less perilous to attack NATO than to attack the United States; on this premise one would assign a greater likelihood to tactical nuclear attack.

Anart from predictions of future Soviet intentions, the Warsaw Pact's capability for initiating a tactical nuclear campaign against NATO can no more be disregarded than its capability to launch a large-scale conventional attack. Obviously a nuclear attack would be far more successful militarily: the Soviets would have the great advantage of a nuclear first strike and NATO's forces, which are not structured for tactical nuclear war, would be highly vulnerable. Yet the U.S. emphasis continues to be based on conventional attack, which somehow is assumed to be far more probable and credible. Ironically, emphasizing a NATO conventional capability to defend against a Pact conventional attack appears only to increase the likelihood that any attack will be nuclear at the outset. Why would the Soviets opt for a mode of warfare that had a lesser chance for victory?

Healey, while essentially ruling out an all-out conventional attack by Warsaw Pact forces, is able to salvage the potentially disastrous consequences of a tactical nuclear attack by reaffirming the U.S. strategic nuclear guarantee:

. . . the impressive thing, I think, for the European Allies is that in spite of the very substantial growth in the Soviet nuclear capability there has been no sign whatever of America being unwilling to continue providing the nuclear guarantee to her European Allies which she has provided successfully over the last 20 years.⁴

V

The U.S. strategic umbrella has been the fundamental shield of NATO. Under any set of conditions for defense against ground attack by the Warsaw Pact, America's pledge to use strategic forces has been essential for NATO's viability. Although these forces originally were regarded as a strategic deterrent to attack,

² Interview, "The Nuclear Genie," Radio 4 (London), Aspects of Government Series, April 7, 1970.

³ Martin J. Miller, Jr., "Soviet Nuclear Tactics," *Ordnance*, May-June 1970.

⁴ Interview, *op. cit.*

in recent years U.S. conventional emphasis policy has obscured their deterrent role. It has not been possible to define the set of circumstances under which U.S. strategic forces would be used, and in stressing the necessity for NATO to resist a Pact conventional attack with conventional defense, for periods up to ninety days, the U.S. desire to withhold its strategic forces has emerged. Moreover, this desire has increased in accordance with increasing Soviet strategic capabilities.

On the one hand, it may not be possible politically for the United States to renounce its strategic guarantees to NATO. On the other hand, we have recently seen official U.S. references to present Soviet capabilities that are quite different from those made when the U.S. preference for conventional emphasis was expressed first in the early 1960's.

In his report to the Congress on foreign policy, in February 1970,⁵ President Nixon stressed the growth of the Soviet strategic forces. He pointed out that "the prospect for the 1970's is that the Soviets will possess strategic forces approaching and in some categories exceeding our own." He described the strategic balance during this period as representing a "fundamental change" and an "inescapable reality." These observations concerned NATO problems and showed the need "to conduct a thorough study of our strategy for the defense of Western Europe, including a full and candid exchange of views with our allies."

In many NATO problem areas "full and candid" discussion is possible. However, full candor—by either the United States or its European allies—on the issue of strategic guarantees seems politically inadvisable. For the United States to give unequivocal assurances probably would hold great domestic political risk, considering the general fears of the consequences of a U.S.-USSR strategic exchange and the mounting inclinations for military disengagement from Europe. For Europeans to press too hard toward receiving such assurances might only lead to greater U.S. equivocation or even a renouncement. Therefore, it would appear that any clear resolution of the problem of strategic guarantees is most difficult to achieve.

At the heart of the matter is not so much NATO's appreciation of the credibility of the U.S. strategic umbrella but rather that of the USSR. In this regard the problem of the Pact's tactical nuclear capabilities comes into focus, for this is one threat to NATO against which there seems to be no effective defense—now or in the future.

If NATO's conventional forces are insufficient to stop a massive Pact conventional thrust into Western Europe, certainly the large-scale first use of NATO's tactical nuclear weapons will suffice. However, if the Pact's thrust begins with its own large-scale use of tactical nuclear weapons, then, considering NATO's vulnerability to this form of attack, it is difficult to see how any effective defensive ability will remain. Moreover, a Pact nuclear strike against NATO would hold the least risk of military failure. But what would the risk be that such a strike would bring strategic retaliation by the United States? Would there be any significant difference, in the risk of incurring such retaliation, between nuclear and conventional attacks? Or has the "fundamental change" in the strategic balance removed any gradations of U.S. resolve in differentiating between modes of attack against NATO?

Answers to these questions must remain subjective and individual. But if it is not possible to resolve the implications of the increasing Soviet tactical nuclear presence in the Warsaw Pact, it appears reasonably clear that this presence substantially compounds an already perplexing problem. In contrast to the military balance in NATO that existed when the United States adopted the Flexible Response policy, when it held a clear-cut tactical nuclear superiority and thus had the ability to achieve tactical victory, the option for victory soon may rest with the Soviets. This poses a potential scenario in which even the use of American strategic forces may not preclude a Pact tactical victory over NATO, and yet where the U.S. strategic option appears to be the only one possible to employ with some hope for beneficial results.

The option for conventional defense emphasis was taken because in President Kennedy's terms, it offered "a wider choice than humiliation or all-out nuclear action." In 1961 humiliation to NATO could have resulted only from the threat of Soviet conventional actions. The United States sought to block this possibility

⁵ "U.S. Foreign Policy for the 1970's, A New Strategy for Peace," A Report to the Congress by Richard Nixon, Feb. 18, 1970.

through a buildup of NATO conventional strength, contending that tactical nuclear defense and general nuclear war, through escalation, would quickly become a common action. In 1971 the Soviet Union may be verging on the ability to humiliate through the threat of tactical nuclear action, against which conventional defense is meaningless. Considering the body of evidence indicating that the Soviets have not chosen to eschew the tactical nuclear option, the question posed is whether NATO should shift from conventional to tactical nuclear emphasis to meet this threat. If it does not and the Soviets are allowed to gain clear tactical nuclear superiority over NATO, the possibility exists that the threat to use this superior force will constrain the United States to decide upon what President Kennedy wanted to avoid—"all-out nuclear action."

An intense and controversial political climate has confused existing knowledge about the technical and military aspects of tactical nuclear weapons and tactical nuclear warfare. In the United States, especially, the subject has been rejected politically on three grounds: (1) Limited discrete tactical nuclear warfare is essentially impossible because both sides, seeking military advantage, would escalate the conflict into general nuclear war with catastrophic consequences. (2) The use of tactical nuclear weapons would produce such high levels of death and destruction to the civilian fabric as to make such use politically impossible. (3) In the United States and over most of the world, especially in Asia, U.S. employment of tactical nuclear weapons would produce deep resentment and assure disastrous political repercussions.

In an era when the United States and the Soviet Union have strategic arsenals with enormous destructive power, to assume that one (or both) would force a tactical conflict (on someone else's soil) to the level of a strategic exchange solely for the sake of gaining military advantage appears ludicrous. Moreover, it is difficult to relate the results of a U.S.-USSR strategic exchange to the course and outcome of a tactical nuclear war in Western Europe. It is conceivable that there is no significant relationship between these modes of warfare and that a Soviet tactical nuclear sweep across Europe could proceed independently of a strategic war. Finally, it never has been made clear why it would be militarily advantageous to escalate the conflict to increasingly higher levels of nuclear violence. An analysis of the problem shows that a NATO tactical nuclear force postured to gain the most effective war-fighting capability would call for enemy use of large numbers of low-yield weapons, reducing substantially the extent of collateral damage effects. Thus, in militarily idealized form the nuclear battlefield would entail lower levels of violence than would result from attack of the target system NATO currently presents to the Warsaw Pact.

What level of collateral damage the use of Soviet tactical nuclear weapons may produce is conjectural, but hardly predictable. However, if we cannot predict the death and destruction the Soviet forces might produce in Western Europe, we can ask why they would employ warheads that would destroy the prize they allegedly sought. And should they desire to maximize military effectiveness and at the same time minimize their contribution to collateral damage, there are technologies in nuclear warheads and delivery systems they can readily exploit to permit this objective.

On the U.S. side of the ledger, the destructive potential in NATO's tactical nuclear stockpile has long been made public. The average nuclear yield per weapon has been revealed to be several times that of the bombs which destroyed Hiroshima and Nagasaki. (Considering that this stockpile contains some seven thousand weapons, its total yield apparently is on the order of several hundred megatons. This is roughly comparable to the total yield of the U.S. Minuteman ICBM force.) Scenarios involving the extensive use of these weapons show horrendous levels of damage; they make plausible the contention that NATO's tactical nuclear weapons lack political credibility and that their general release would not be sanctioned.

The U.S. decision to maintain a tactical nuclear stockpile of such destructive proportions has provoked questions and criticism. In 1968, U.S. Congressman Craig Hosmer, a senior member of the Joint Committee on Atomic Energy, wrote to Secretary of Defense Clark Clifford expressing his opinion on the consequences of not modernizing the stockpile to give it discriminate capabilities:

Grave doubts can be expressed regarding the political credibility of our current tactical stockpile. There is not a single weapon in it for which a decision to produce was made after 1960. I am also not aware of any weapon system in the tactical nuclear area which has a possibility of being

turned over to the military forces before 1972. Because of this it is easy to understand why the average yield of our tactical stockpile has taken on the horrendous proportions described by Mr. McNamara and why DOD studies on tactical nuclear war in Western Europe show such terrible devastation possibilities to the people and lands of our NATO allies.

Since I am aware of what the AEC weapon laboratories have a potentiality to develop in the area of smaller, cleaner and more discriminate tactical nuclear systems to alleviate such devastation, and am aware of the daily increasing obsolescence of our present capability, I can only assume that the absence of an effective force modernization is a matter of conscious and deliberate decision within your office. . . .

If indeed, the Soviets have been busy perfecting a family of clean, discriminate tactical nuclear weapons and the time should ever come when they decide to use them against us and our allies, a time will come when the devastation and contamination from tactical nuclear war will come from our stockpile. Or, a time will come when because of the inevitability of such devastation and contamination, the Soviet appetite for Free World territory will have to be appeased.⁶

From Hosmer's statements it would appear that NATO's tactical stockpile has purposely been assigned weapons of vast destructive potential. In the context of the combined use of tactical and strategic weapons such a decision can be rationalized on the grounds that the tactical weapons are part of the overall nuclear deterrent. But if the strategic guarantee should deteriorate to a degree where its credibility essentially disappears, then the tactical nuclear force is all that is left. In this event the credibility of this force must rest on its usage apart from strategic forces; in which case, in its present form, it may not be credible.

VI

Apart from an understandable desire by the United States to seek policies and military postures that work to minimize the need to use tactical nuclear weapons, there has been the additional factor, both domestically and abroad, of the political and moral burden such use would entail. Much of this assumed burden has stemmed from the world reaction to the Hiroshima and Nagasaki bombings and the image of the nuclear weapon as an instrument of vast urban destruction. The horror of these bombings has been used for political purposes ever since. In particular, it has been widely held in the United States that the use of nuclear weapons against an Asian enemy would produce such deep resentment and turmoil in many Asian countries that the military benefits would be more than negated by the political loss.

Seven years ago, in 1964, Senator Goldwater discovered the domestic political hazard of contemplating the use of low-yield nuclear weapons in Viet Nam. It is noteworthy, looking back on this episode, that the U.S. domestic reaction upstaged by far whatever Asian reaction there was to such statements from a presidential candidate. What about the climate on tactical nuclear weapons today?

Generally, the political trauma on a given issue can become intense when there are no related issues for which the climate is comparably traumatic. Such was the case in 1964 when national policy and dialogue singled out the tactical nuclear genie as singularly threatening to U.S. survival and security. There was no widespread concern about America's ability to fight conventional wars, and her substantial strategic superiority assured that no nuclear power would launch a strategic attack against her. Today, however, national concern over the problems of conventional and strategic warfare represents serious factors countervailing a singular concern over the possible use of tactical nuclear weapons.

The traumatic experience of the Viet Nam war has made the contemplation of future conventional engagements fearful to a degree where we now see a general U.S. withdrawal from the Asian theater and mounting pressures for withdrawal from Europe. Relatively speaking, how fearful is the prospect of attaining a tactical nuclear posture as compared with retaining a conventional posture in areas where potential conflict exists? It is not clear at this juncture that the tactical nuclear option would receive outright rejection.

⁶ *Congressional Record*, July 31, 1968, pp. H7955-7956.

In the early 1960's the United States widely publicized its strategic superiority over the Soviet Union. America's strategic power was put on open display during the Cuban missile crisis when the flexing of U.S. strategic might was alleged to have been the major factor in persuading the Soviets to withdraw their missiles. Today it is admitted that the Soviets have more ICBM's than the United States and that theirs are capable of delivering considerably more megatonnage. Furthermore, official fears repeat that this Soviet ICBM superiority soon will give the USSR an effective first-strike capability to destroy the U.S. Minuteman missile system unless the Safeguard ABM is deployed. This revelation of Soviet offensive missile might and the U.S. decision to cope with it only through defensive means hardly is an indication of strategic bravado, as practiced through the 1950's and into the early 1960's. On the contrary, it is more in the way of expressing apprehension of the Soviet buildup and a recognition that U.S. strategic options for dealing with possible Soviet aggression have little, if any, credibility left. (Within another decade the same may hold true for dealing with Communist China.)

Because of current U.S. domestic fears and preoccupation over the consequences of conventional and strategic nuclear war, it is at least questionable whether the essentially unnoticed and unpublicized issue of tactical nuclear weapons would provoke a significant uproar if it were surfaced. It may well be that the national resentment over conventional involvement—which has proved to be prolonged, costly in national resources and ineffective—transcends whatever qualms might exist if a shift in policy were announced in which tactical nuclear weapons were substituted for U.S. manpower. And almost certainly a policy of tactical nuclear response would be preferred to any reintroduction of massive strategic retaliation against an aggressor, where the aggression was not directly against the United States.

For almost twenty years after the Hiroshima and Nagasaki bombings, it was widely contended that the U.S. use of tactical nuclear weapons against a communist Asian enemy would produce the most unfortunate reaction on the part of noncommunist Asian powers, particularly India and Japan. How well this allegation has held up within the last several years deserves scrutiny, for these years have encompassed the major military involvement and disengagement of the United States in Southeast Asia and a growing apprehension by Asian nations regarding the U.S. ability to protect them against future communist aggression.

The attitude of India toward nuclear weaponry has changed drastically in favor of the nuclear option, a refusal to sign the Nonproliferation Treaty (NPT) and strong indications that the decision has been made to develop nuclear explosives. Japan was slow to sign the NPT and at this juncture has yet to ratify it. While there have been official Japanese denials of intent to develop a nuclear arsenal, there has not been any national repression of debate on the subject.

Other Asian countries have shown considerable reluctance to embrace the NPT. Regarding the U.S. employment of tactical nuclear weapons, however, the subject seems less of direct concern in Asia than in the United States. There certainly has been no repugnance expressed to the notion. A Gallup Poll on Asian attitudes toward the military use of nuclear energy does not appear to exist, but perhaps indicative of such attitudes, as a consequence of the Viet Nam war, is an opinion expressed by Philippines Foreign Minister Carlos Romulo after President Nixon first enunciated the principles of the new U.S. military policy for Asian defense, the Nixon Doctrine, in September 1969.

Romulo's reaction and concern about future communist aggression in Asia was of a magnitude to provoke him to say that the United Nations should establish radioactive belts along threatened borders to repel attack.⁷ (He was referring here to the suggestion allegedly made by MacArthur during the Korean war.) While Romulo's opinion may not represent Asian opinion—insofar as there is one—on U.S. nuclear weapons usage on behalf of threatened allies, it is interesting to note that thus far in the Viet Nam war no American officials of comparable rank and distinction has even hinted at the possibility of using some form of nuclear energy to improve the military position. Ironically, such a statement has come first from an Asian, whose prestige in Asia seems not to have suffered as a result.

⁷ *New York Times*, September 22, 1969.

It is true that whatever the future may hold is only suppositional. It is also true that we cannot exclude from the future what most would prefer to have excluded—namely, the incorporation of nuclear weapons into ground warfare. The emotional block to contemplating future contingencies in which the governing factors dictate the use of tactical nuclear weapons has had a highly inhibiting effect on the U.S. ability to plan around the military and political realities of such contingencies. Estimating what might be the results of this inaction would have to be based on assumptions for an unassumable future. Yet we can dwell on future possibilities which, in the context of today's understanding, hold respectable probabilities of occurring.

The Viet Nam campaign has shown a U.S. propensity to make great efforts and expend huge sums of money in waging conventional war. The consequence of this experience has been a new policy for Asia in which Asian combat personnel will receive American advice and weapons. But noting that the United States has failed to end a war in Southeast Asia with advice and weapons, plus a massive infusion of its own personnel, how optimistic can we be that Asian friends and allies will do well or better—considering that U.S. monetary generosity most likely will be sharply limited as compared with Viet Nam expenditures? If, for reasons such as these, it turns out that certain Asian nations cannot defend themselves, is the United States to stand by while they topple, or will it be willing to use tactical nuclear weapons in a manner which fits credibly into the military and political situation at hand? If the choice is to be latter, then perhaps planning and development for such contingencies should now be considered.

In Europe NATO faces a potential adversary that has achieved a formidable tactical nuclear capability. If the United States continues to stress conventional defense—at the expense of providing a viable tactical nuclear posture for NATO—and the Soviet tactical nuclear buildup continues at its past rate, a time will come when the outcome of a ground war will appear decidedly in favor of the Warsaw Pact. The question of how the Soviets might exploit this superiority is moot. That they would actually launch a full-scale attack against NATO, using these forces, seems difficult to imagine, though the possibility cannot be ruled out. But for NATO to contemplate a future where such a possibility exists and where the U.S. protective strategic shield has essentially vanished does not bode well for high resolve in differences or confrontations with the USSR and the Warsaw Pact.

Surely the United States never would allow the Soviets to gain a clear-cut strategic superiority which might be used for coercive purposes in direct confrontations between the two powers. Yet, by not providing NATO with realistic means to deter tactical nuclear attack it is risking a future for Western Europe that it would not risk for itself. What this future may be remains to be seen, but as of now the East-West nuclear chessboard seems to be changing in a manner allowing the more decisive moves to be made by the East.

VII

✓ A decade ago revelations were made of possibilities for new classes of tactical nuclear weapons deriving their energy from the fusion of light elements, such as hydrogen and lithium. In contrast to the use of heavy fissionable elements, uranium and plutonium, exploitation of these fusion processes could largely eliminate the objectionable features of excessive physical destruction and radioactive contamination. In fact, tactical fusion weapons offered a potential that appeared considerably more discriminate than conventional warfare.

In 1967 it was officially revealed that the United States was pursuing research programs along fusion lines:

The AEC is conducting research on enhanced radiation weapons—neutron bombs. Such a device would be very “clean.” The term “very clean” would come from fusion. The blast effect would be very small but the radiation effect from neutrons would be predominant. The AEC also is conducting research on pure fusion weapons. The status of programs for developing such weapons is classified.⁸

Yet it would appear that prevailing security policies of the 1960's have precluded the incorporation of this technology into the tactical stockpile. As a con-

⁸ “U.S. Discloses Its Weapons in Nuclear Arsenal,” *Los Angeles Times*, September 6, 1967.

sequence, the stockpile has remained of a nature which drew the following remarks from two U.S. Atomic Energy Commission scientists:

Our present tactical nuclear armaments were conceived and weaponized in the 1950's under assumptions that are ill-advised for the 1970's. Escalation was equated with desperation in an extension of a contestant concept of war. Ten or twenty kilotons were regarded as a "small, tactical" yield, to be used in a European ground battle for real estate *after* a strategic exchange. In the aftermath of that holocaust reducing "tactical" collateral damage was only of academic interest. A new strategy—policing our boundaries with individual yields reduced by factors of 100 to 1000, and burst predominantly in the air or underground—could reduce the integrated collateral damage by factors of thousands, even if the *number* of uses were greatly increased.⁹

If the United States has neglected to exploit this new and different technology for its tactical arsenal, has the Soviet Union likewise? There may be no definitive answer to this question. For almost eight years, in accordance with the Limited Nuclear Test Ban Treaty, Soviet testing has occurred underground. Not only has this effectively shut off the gathering of debris from the atmosphere that might enable an analysis of these tests, but for the low-yield category, of greatest relevance to discriminate weapon capabilities, it is possible that a large number of such tests has escaped even detection. Thus, the intelligence assessment of Soviet tactical nuclear warhead developments may be quite limited and the possibility exists that the U.S.S.R. may clandestinely be able to attain a family of discriminate weapons. Should this take place and should the Soviets some day combine intimidation of a NATO nation with a demonstration of such a capability, what might the response be?

To divine what official national reaction might be, holds the same limitation as efforts to determine the future credibility of the U.S. strategic nuclear guarantee: one cannot talk officially with candor on such matters. However, were candor to underlie the answer to the above question, the logic behind that candor should be disturbing, for it poses the question of how one responds to a superior credible threat with an incredible response, both tactical and strategic.

[From the Washington Post, July 15, 1971]

WHY NOT TELL WHERE THE WEAPONS ARE?

(By Morton H. Halperin)*

Are there nuclear weapons on Okinawa?

Ask an American reporter and he will say "almost certainly."

Ask any Japanese newspaperman or opposition Diet member and he will give you a flat "yes."

Ask an Okinawan and he is likely to point out to you the specially guarded and distinct "special weapons" facilities that dot the island.

Ask an American official and he will assert that it is the policy of the United States to neither confirm nor deny the presence of nuclear weapons anywhere in the world.

If you press for the reasons for this policy you will be told that the security of the United States would be jeopardized if such information were given out. If you are still not satisfied you will learn that the reasoning that leads to this decision is itself deemed to be classified—at least no American official will discuss it on the record.

As many have long understood and as now most Americans know because of the controversy surrounding the Pentagon papers, information remains classified only until some official decides that it is in the nation's interest or his own to have it revealed. Thus there is one very large exception to this "neither confirm nor deny" rule. The United States has more than 7,000 nuclear weapons in Europe. This information was first reported in a press backgrounder held

⁹ R. G. Shreffler and W. S. Bennett, *Tactical Nuclear Warfare*, Los Alamos Scientific Laboratory, LA-4467-MS, June 1970.

*Halperin is a former Defense Department official who is prohibited by existing security regulations from confirming or denying the presence of nuclear weapons overseas.